

PRICE ONE SHILLING,

THE  
ILLUSTRATED LONDON ALMANACK,

CONTAINING

TWELVE HEADINGS TO THE CALENDAR, FOURTEEN BEAUTIFUL ENGRAVINGS, AND TWENTY-FIVE DIAGRAMMS  
OF THE COMET AND APPEARANCES OF THE PLANETS;

CALENDAR, FESTIVALS, ANNIVERSARIES, TIMES OF HIGH WATER, AND OF THE RISING AND  
SETTING OF THE SUN, MOON, AND PLANETS FOR EACH MONTH;

ALSO,

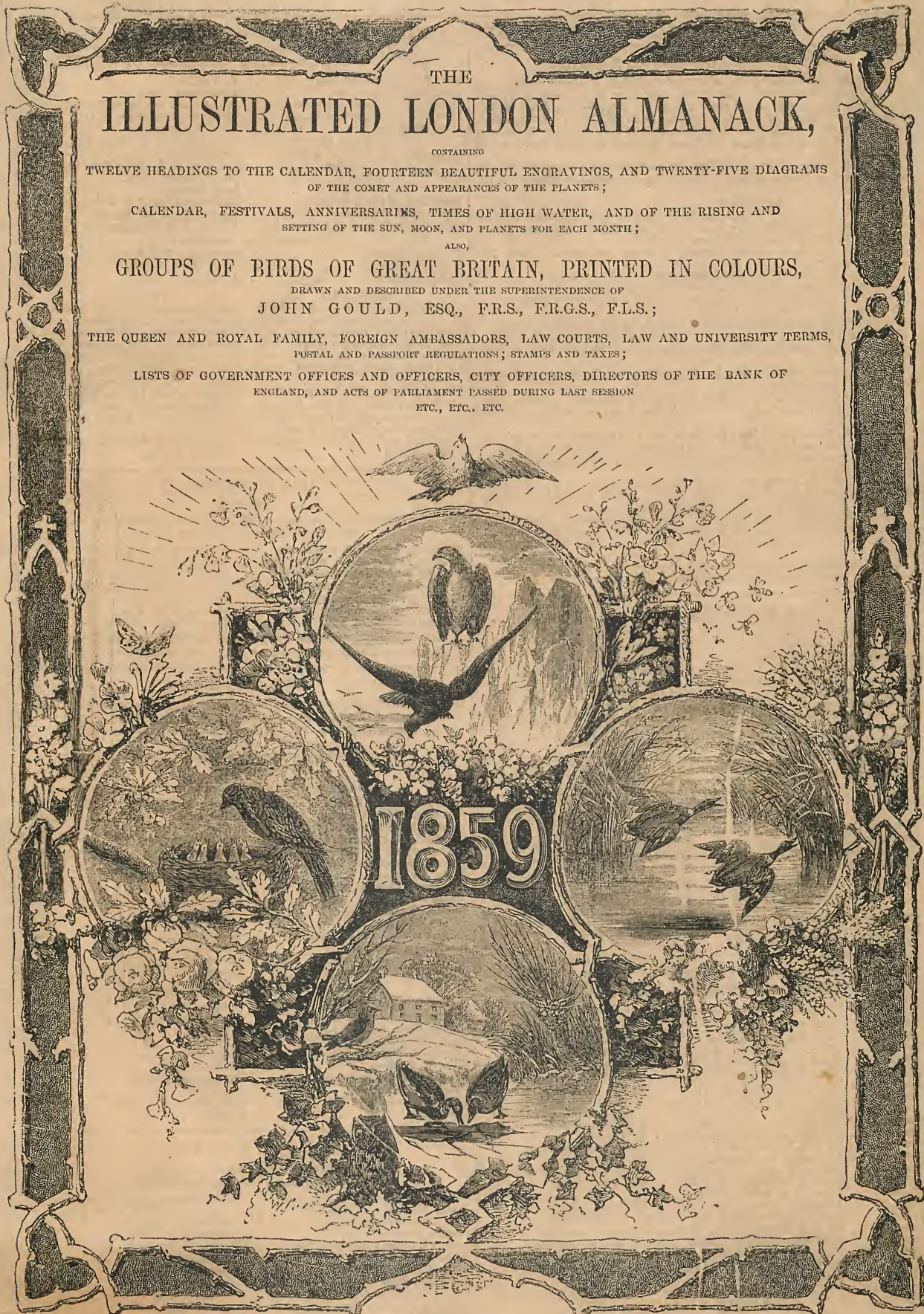
GROUPS OF BIRDS OF GREAT BRITAIN, PRINTED IN COLOURS,

DRAWN AND DESCRIBED UNDER THE SUPERINTENDENCE OF

JOHN GOULD, ESQ., F.R.S., F.R.G.S., F.L.S.;

THE QUEEN AND ROYAL FAMILY, FOREIGN AMBASSADORS, LAW COURTS, LAW AND UNIVERSITY TERMS,  
POSTAL AND PASSPORT REGULATIONS; STAMPS AND TAXES;

LISTS OF GOVERNMENT OFFICES AND OFFICERS, CITY OFFICERS, DIRECTORS OF THE BANK OF  
ENGLAND, AND ACTS OF PARLIAMENT PASSED DURING LAST SESSION  
ETC., ETC., ETC.



LONDON:

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198, STRAND.



# THE ILLUSTRATED LONDON ALMANACK FOR 1859.

## THE QUEEN AND ROYAL FAMILY.

**THE QUEEN.**—VICTORIA, of the United Kingdom of Great Britain and Ireland, Queen, Defender of the Faith, was born at Kensington Palace, May 24, 1819; succeeded to the throne June 20, 1837, on the death of her uncle, King William IV.; was crowned June 28, 1838; and married, February 10, 1840, to his Royal Highness Prince Albert. Her Majesty is the only child of his late Royal Highness Edward Duke of Kent, son of King George III.

His Royal Highness Francis-Albert-Augustus-Charles-Emanuel-Buisici, PRINCE CONSORT, DUKE OF SAXE, PRINCE OF COBURG AND GOTH, K.G., born August 26, 1819.

The children of her Majesty are:—

Her Royal Highness Victoria-Adelaide-Mary-Louisa, PRINCESS ROYAL, born November 21, 1840, and married to his Royal Highness Prince Frederick William of Prussia, January 23, 1858.

His Royal Highness Albert-Edward, PRINCE OF WALES, born November 9, 1841.

Her Royal Highness Alice Maud-Mary, born April 25, 1843.

His Royal Highness Alfred-Ernest Albert, born August 6, 1844.

Her Royal Highness Helena-Augusta-Victoria, born May 25, 1846.

Her Royal Highness Louisa-Carolina-Alberta, born March 18, 1848.

His Royal Highness Arthur-William-Patriek-Albert, born May 1, 1850.

His Royal Highness Leopold-George-Duncan-Albert, born April 7, 1853.

Her Royal Highness Beatrice-Mary-Victoria-Feodore, born April 14, 1857.

George-Frederick-William Charles, K.G., DUKE OF CAMBRIDGE, cousin to her Majesty, born March 26, 1819.

Victoria-Mary-Louisa, DUCHESS OF KENT, her Majesty's mother, born August 17, 1786; married, in 1818, to the Duke of Kent, who died January 23, 1820.

Augusta-Wilhelmina-Louisa, DUCHESS OF CAMBRIDGE, niece of the Landgrave of Hesse, born July 25, 1795; married, in 1818, the late Duke of Cambridge, by whom she has issue George-William, Augusta-Caroline, and Mary-Adelaide.

George-Frederick-Alexander-Charles-Ernest-Augustus, K.G., KING OF HANOVER, cousin to her Majesty, born May 27, 1819; married, February, 1843, Princess Mary of Saxe-Altenburg, and has a son.

Augusta-Caroline-Charlotte-Elizabeth-Mary-Sophia-Louisa, daughter of the late Duke of Cambridge, and cousin to her Majesty, born July 19, 1822; married, June 28, 1843, Frederick, Hereditary Grand Duke of Mecklenburg-Strelitz.

Mary-Adelaide-Wilhelmina-Elizabeth, daughter of the late Duke of Cambridge, and cousin to her Majesty, born November 27, 1833.

## HER MAJESTY'S HOUSEHOLD.

Lord Steward .. .. .	Marquis of Exeter.
Treasurer of the Household .. .. .	Lord Claud Hamilton.
Comptroller of the Household .. .. .	Right Hon. C. W. Forester.
Master of the Household .. .. .	Lieutenant-Colonel Biddulph.
Secretary of Board of Green Cloth .. .. .	E. M. Browell, Esq.
Lord Chamberlain .. .. .	Earl De la Warr.
Vice-Chamberlain .. .. .	Viscount Newport.
Keeper of the Privy Purse .. .. .	Colonel Hon. Sir C. B. Phipps, C.B.
Secretary .. .. .	H. T. Harrison, Esq.
Mistress of the Robes .. .. .	Duchess of Manchester.
Master of the Horse .. .. .	Duke of Beaufort.
Clerk Marshal .. .. .	Lord Colville.
Master of the Buckhounds .. .. .	Earl of Sandwich.

## PRINCE CONSORT'S HOUSEHOLD.

Groom of the Stole .. .. .	Marquis of Abercorn, K.G.
Treasurer .. .. .	Colonel Hon. Sir C. B. Phipps, C.B.
Private Secretary .. .. .	Major-General Hon. C. Grey.
Clerk Marshal .. .. .	Colonel Hon. A. N. Hood.

## PRINCE OF WALES'S HOUSEHOLD.

Treasurer and Cofferer .. .. .	Colonel Hon. Sir C. B. Phipps.
Keeper of the Privy Seal .. .. .	Hon. H. B. W. Brand.
Secretary and Clerk of Council .. .. .	J. R. Gardner, Esq.
Attorney-General .. .. .	W. J. Alexander, Esq.

## BRITISH AND FOREIGN AMBASSADORS.

British Ambassadors &c., Abroad.	Foreign Ambassadors in England.
America .. Lord Napier	Hon. George M. Dallas
Austria .. Lord Augustus Loftus ..	Count d'Apponyi
Bavaria .. Sir J. R. Milbanke, Bart.	Baron de Cetto
Belgium .. Lord H. de Walden, G.C.B.	M. Van de Weyer
Brazil .. Hon. P. C. Sealett, C.B.	Com. de C. Moreira
Buenos Ayres W. D. Christie, Esq.	Don M. Moreno
Denmark .. Hon. H. G. Elliot	Admiral Van Doekum
France .. Earl Cowley, G.C.B.	Marshall Duke de Malakoff
German Conf. Sir Alexander Malet, Bart.	J. G. Behrends, Esq. (Cons.)
Greece .. Rt. Hon. Sir Thos Wyse, K.C.B.	M. Tricoupi
Hanover .. G. J. R. Gordon, Esq.	Count Kielmansegge
Hanse Towns Colonel G. L. Hodges, C.B.	Dr. Rucker
Mexico .. Loftus C. Otway, Esq., C.B.	General J. M. Almonte
Netherlands Lord Dunfermline, K.C.B.	Baron Bentinck
Persia .. Hon. C. A. Murray, C.B.	
Portugal .. Henry F. Howard, Esq.	Count de Lavradio
Prussia .. Lord Bloomfield, K.C.B.	Count Bernstorff
Russia .. Sir J. F. Crampton, Bt., K.C.B.	Baron de Brunnow
Sardinia .. Sir James Hudson, K.C.B.	Marquis d'Azeglio
Saxony .. Hon. Francis R. Forbes	Count Vitthum d'Eckstätt
Spain .. Andrew Buchanan, Esq., C.D.	Senor Gonzales Bravo
Sweden .. Sir A. C. Magenis	Count Platen
Switzerland Capt. Hon. E. A. J. Harris	J. Rapp, Esq. (Cons.-Gen.)
Turkey .. Sir H. Lytton Bulwer, G.C.B.	M. Musurus
Tuscany .. Hon. R. B. P. Lyons	Prince J. Poniatowski
Wurtemberg Hon. G. S. S. Jerningham	B. Hebel, Esq. (Cons.-Gen.)

## HER MAJESTY'S CHIEF OFFICERS OF STATE.

First Lord of the Treasury .. .. .	Earl of Derby.
Lord High Chancellor .. .. .	Lord Chelmsford.
Chancellor of the Exchequer .. .. .	Right Hon. Benjamin Disraeli.
Lord President of the Council .. .. .	Marquis of Salisbury, K.G..
Lord Privy Seal .. .. .	Earl of Hardwicke.
Secretaries of State	Home Department .. Right Hon. S. H. Walpole.
	Foreign Affairs .. Earl of Malmesbury.
	Colonies .. Sir E. G. E. L. B. Lytton, Bart.
	War .. Major-General Peel.
	India .. Lord Stanley.
First Lord of the Admiralty .. .. .	Right Hon. Sir J. S. Pakington, Bt.
President of the Board of Trade .. .. .	Right Hon. J. W. Henley.
Chief Commissioner of Works, &c. .. .. .	Lord J. J. R. Manners.

(The above form the Cabinet.)

Attorney-General .. .. .	Sir Fitzroy Kelly
Solicitor-General .. .. .	Sir H. M'C. Cairns.
Queen's Serjeant .. .. .	J. Manning, Esq.

## SCOTLAND.

Lord High Constable, Earl of Errol.  
Keeper of Great Seal, Earl of Selkirk.  
Lord Privy Seal, Lord Panmure, K.T.  
Mas. Household, Duke of Argyll, Kt.  
Ld. High Commis., Earl of Mansfield.  
Lord Clerk Register, Marquis of Dalhousie, K.T.  
Ld. Justice Gen., Rt. Hn. D. McNeill.  
Ld. Justice Clerk, Rt. Hn. J. Inglis.  
Lord Advocate, Right Hn. C. Baillie.  
Solicitor-General, David Mure, Esq.  
Commander of Forces, Viscount Melville, K.C.B.

## IRELAND.

Lord Lieutenant, Earl of Eglinton.  
Chief Secretary, Lord Naas.  
Under Secretary, Sir T. Lareom, C.B.  
Chief Clerk, R. N. Matheson, Esq.  
Private Secretary, R. Wingfield, Esq.  
Lord Chancellor, Rt. Hon. J. Napier.  
Secretary, W. J. Napier, Esq.  
Master of Rolls, Rt. Hn. T.B.C. Smith.  
Attorney-Gen., Rt. Hn. J. Whiteside.  
Solicitor-General, Edm. Hayes, Esq., LL.D.  
Commander of Forces, General Lord Seaton, G.C.B.

## INDIAN DEPARTMENT.

### COUNCIL.

PRESIDENT AND SECRETARY OF STATE—Lord Stanley.  
VICE-PRESIDENT—Sir Frederick Currie.

Sir Henry Creswicke Rawlinson.	Sir James Weir Hogg.
Sir Henry Conyngham Montgomery.	William Joseph Eastwick, Esq.
Gen. Sir Robert John Hussey Vivian.	John Shepherd, Esq.
Sir John Laird Mais Lawrence.	Ross Donnelly Mangles, Esq.
Sir Proby Thomas Cautley.	Elliott Maenaghten, Esq.
John Pollard Willoughby, Esq.	Charles Mills, Esq.
William Arbuthnot, Esq.	Henry Thoby Priusep, Esq.

UNDER SECRETARIES—Sir George Clerk and Mr. Henry Baillie, M.P.  
ASSISTANT UNDER-SECRETARY OF STATE—Mr. James Cosmo Melvil.

## CITY OFFICERS.

LORD MAYOR—Right Hon. DAVID WILLIAMS WIRE (Walbrook Ward, 1851).

SHERIFFS—Warren Stormes Hale, Esq., Edward Conder, Esq.

UNDER-SHERIFFS—Thomas Jones, Esq., Timothy Surr, Esq.

CHAMBERLAIN—Scott, Esq.

RECORDER—Russell Gurney, Esq., Q.C.

### ALDERMEN.

THE FOLLOWING HAVE PASSED THE CHAIR.

Laurie, Sir Peter, Knt. .. .. .	Aldersgate Ward .. .. .	1826
Copeland, William Taylor, Esq. .. .. .	Bishopsgate .. .. .	1829
Wilson, Samuel, Esq. .. .. .	Bridge Without .. .. .	1831
Marshall, Sir Chapman, Knt. .. .. .	Bridge Within .. .. .	1832
Humphrey, John, Esq. .. .. .	Aldgate .. .. .	1835
Carroll, Sir George .. .. .	Candlewick .. .. .	1840
Duke, Sir James .. .. .	Farringdon Without .. .. .	1840
Farncomb, Thomas, Esq. .. .. .	Bassishaw .. .. .	1840
Muggeridge, Sir Henry, Knt. .. .. .	Broad-street .. .. .	1842
Challis, Thomas, Esq. .. .. .	Cripplegate .. .. .	1843
Sidney, Thomas, Esq. .. .. .	Billingsgate .. .. .	1844
Moon, Sir Francis Graham, Bart. .. .. .	Portoken .. .. .	1844
Salomons, David, Esq. .. .. .	Cordwainer .. .. .	1848
Finnis, Thomas Quested .. .. .	Tower .. .. .	1848
Carden, Sir Robert Walter .. .. .	Dowgate .. .. .	1849

THE FOLLOWING HAVE NOT PASSED THE CHAIR.

Cubitt, William, Esq. .. .. .	Langbourne .. .. .	1851
Muggeridge, Sir Henry, Knt. .. .. .	Castle Baynard .. .. .	1851
Carter, John, Esq. .. .. .	Cornhill .. .. .	1854
Rose, William Anderson, Esq. .. .. .	Queenhithe .. .. .	1854
Lawrence, William, Esq. .. .. .	Bread-street .. .. .	1855
Hale, W. S., Esq. .. .. .	Coleman-street .. .. .	1856
Phillips, Benjamin Samuel, Esq. .. .. .	Farringdon Within .. .. .	1857
Gabriel, Thomas, Esq. .. .. .	Vintny .. .. .	1857
Meech, John Joseph, Esq. .. .. .	Lime-street .. .. .	1858
Allen, Esq. .. .. .	Cheap .. .. .	1858

## BANK OF ENGLAND.

GOVERNOR—Sheffield Neave, Esq.

DEPUTY-GOVERNOR—Bonamy Dobree, Esq.

Thomas Baring, Esq.	John Gellibrand Hubbard, Esq.
Henry Wollaston Blake, Esq.	Charles Frederick Huth, Esq.
Henry Hulse Berens, Esq.	Alfred Latham, Esq.
Travers Buxton, Esq.	George Lyall, Esq.
Arthur Edward Campbell, Esq.	James Malcolmson, Esq.
William Cotton, Esq.	Thomas Masterman, Esq.
James Pattison Currie, Esq.	Alexander Matheson, Esq.
George Joachim Göschen, Esq.	James Morris, Esq.
James Alexander Guthrie, Esq.	George Warde Norman, Esq.
Thomson Hankey, Esq.	Edward Howley Palmer, Esq.
John Oliver Hanson, Esq.	Thomas Charles Smith, Esq.
John Benjamin Heath, Esq.	Thomas Matthias Woguelin, Esq.



THE ILLUSTRATED LONDON ALMANACK FOR 1859.

THE CALENDAR.

PRINCIPAL ARTICLES OF THE CALENDAR FOR THE YEAR  
OF OUR LORD 1859.

	Gregorian, or New Calendar.	Julian, or Old Calendar.
Golden Number .. .. .	17	17
Epect .. .. .	XXVI	VII
Solar Cycle .. .. .	20	20
Roman Indiction .. .. .	2	2
Dominical Letter .. .. .	B	D
Septuagesima .. .. .	Feb. 20	Feb. 8
Ash Wednesday .. .. .	March 9	Feb. 25
Easter Sunday .. .. .	April 24	April 12
Ascension Day .. .. .	June 2	May 21
Pentecost—Whit Sunday .. .. .	June 12	May 31
1st Sunday in Advent .. .. .	Nov. 27	Nov. 29.

The year 1859 is the latter part of the 5619th and the beginning of the 5620th year since the creation of the world, according to the Jews. The year 5620 begins on Sept. 29, 1859.

The year 1859 answers to the 6572nd year of the Julian Period, to the 2612th year from the foundation of Rome, to the 2635th year of the Olympiads, and to the 2606th year since the Era of Nabonassar. It answers to the year 7367-8 of the Byzantine Era.

The year 1276 of the Mohammedan Era commences on Aug. 1, 1859, and Ramadân (month of abstinence observed by the Turks) commences on April 4, 1859.

## CALENDAR OF THE JEWS FOR THE YEAR 1859.

5619.		1858.		NEW MOONS AND FEASTS	
Tebeth	10	December	17	Fast: Siege of Jerusalem	
		1859.			
Schebat	1	January	6		
Adar	1	February	5		
"	14	"	18	Lesser Purim	
Weadar	1	March	7		
"	11	"	17	Fast: Esther	
"	14	"	20	Purim	
"	15	"	21	Schuschan Purim	
Nisan	1	April	5		
"	15	"	19	Passover begins*	
"	16	"	20	Second Feast*	
"	21	"	25	Seventh Feast*	
"	22	"	26	End of Passover*	
Ijar	1	May	5		
"	18	"	22	Lag Bo'mer	
Sivan	1	June	3		
"	6	"	8	Feast of Weeks*	
"	7	"	9	Second Feast*	
Thamuz	1	July	3		
"	17	"	14		
Ab	1	August	1	Fast: Seizure of the Temple	
"	9	"	9		
Elul	1	"	31	Fast: Destruction of the Temple*	
5620.					
Tischri	1	Septemb.	29	New Year's Feast*	
"	2	"	30	Second Feast*	
"	4	October	2	Fast: Death of Gedaliah	
"	10	"	8	Fast: Day of Atonement*	
"	15	"	13	Feast of the Tabernacles*	
"	16	"	14	Second Feast*	
"	21	"	19	Feast of Branches	
"	22	"	20	End of Feast of Tabernacles*	
"	23	"	21	Feast of the Law*	
"		"	29		
Marshes.	1				
Kislev	1	Novemb.	2		
"	25	Decemb.	21	Fast of the Dedication of the Temple	
Tebeth	1	"	27		
		1860.			
"	10	January	5	Fast: Siege of Jerusalem	

Those marked with an asterisk are strictly observed.

BEGINNING OF THE SEASONS. 1859.

		D.		H.		M.	
Sun enters	Capricornus and	Winter begins	1858,	Dec.	22	2	12 A. M.
" "	Aries	Spring begins	1859,	Mar.	21	3	20 A. M.
" "	Cancer	Summer begins	"	June	21	11	58 P. M.
" "	Libra	Autumn begins	"	Sept.	23	2	10 P. M.
" "	Capricornus	Winter begins	"	Dec.	22	8	3 A. M.

The Sun will consequently be in the	Winter signs	89	1	8
" " " "	Spring signs	92	20	38
" " " "	Summer signs	93	14	12
" " " "	Autumn signs	89	17	53

The Summer is therefore 4 days 13 hours and 4 minutes longer than the Winter; 3 days 20 hours and 19 minutes longer than the Autumn; and 17 hours and 34 minutes longer than the Spring.

The Sun will be on the Equator and going North (Mar. 21 3 20 A.M., his declin. being  $0^{\circ} 0' 0''$ )

The Sun will reach his } June 21 11 58 P.M., his declin. being 23 27 34  
 greatest North declination }  
 The Sun will be on the } Sept 22 2 10 P.M. his declin. being 0 0 0

Equator and going South	Sept. 23	2 10 P.M., his declin. being 0 0 0
The Sun will reach his greatest South declination	Dec. 22	8 3 A.M., his declin. being 23 27 33

The Sun will be North of the Equator (comprising the periods of Spring and Summer) 186 days 10 hours 50 minutes.

The Sun will be South of the Equator (comprising the periods of Autumn and Winter) 178 days 19 hours 1 minute.

MOHAMMEDAN CALENDAR FOR THE YEAR 1859.

Year.	Name of the Month.	Month begins.
1275.	Dschemadi el-awwel I. .. .. .	December 7, 1858
"	Dschemadi el-aecher I. .. .. .	January 6, 1859
"	Redsheb I. .. .. .	February 4, "
"	Schabân I. .. .. .	March 6, "
"	Ramadân I. .. .. .	April 4, "
"	Schewwâl I. .. .. .	May 4, "
"	Dsû'l-kade I. .. .. .	June 2, "
"	Dsû'l-hedsche I. .. .. .	July 2, "
1276.	Moharrem I. .. .. .	" 31, "
"	Safar I. .. .. .	August 30, "
"	Rebi el-awwel I. .. .. .	September 28, "
"	Rebi el-aecher I. .. .. .	October 28, "
"	Dschemadi el-awwel I. .. .. .	November 26, "
"	Dschemadi el-aecher I. .. .. .	December 26, "
"	Redsheb I. .. .. .	January 24, 1860

## LAW TERMS.

As settled by Statutes 11 Geo. IV., and 1 Will. IV., cap. 70, s. 6 (passed July 23, 1830); 1 Will. IV., cap. 3, s. 2 (passed December 23, 1830).

Hilary Term .. ..	Begins January 11	Ends January 31
Easter Term .. ..	" April 15	" May 12
Trinity Term .. ..	" May 26	" June 16
Michaelmas Term ..	" November 2	" November 25

## UNIVERSITY TERMS, 1859.

OXFORD.

TERM.				BEGINS.	ENDS
Lent	..	..	..	January 14	April 16
Easter	..	..	..	May 4	June 10
Trinity	..	..	..	June 15	July 9
Michaelmas	..	..	..	October 10	December 17

The Act, July 5.

## CAMBRIDGE.

TERM.	BEGINS.	DIVIDES.	ENDS.
Lent .. ..	Jan. 13	Feb. 28, Noon	April 15
Easter .. ..	May 4	June 5, Midnight	July 8
Michaelmas ..	Oct. 10	Nov. 12, Midnight	Dec. 16

The Commencement, July 5.

ASTRONOMICAL SYMBOLS AND ABBREVIATIONS.

☉ The Sun	19 Fortuna	48 Doris	51 Nemesis
☾ New Moon	20 Luetitia	49 Pales	52 Europa
☾ First Quart. of Moon	21 Lucilla	50 Virginia	53 —
☾ Full Moon	22 Callope	♃ Jupiter	
☾ Last Quart. of Moon	23 Thalia	♄ Saturn	
☿ Mercury	24 Themis	♅ Uranus	
♀ Venus	25 Phoebe	♆ Neptune	
♂ or ♀ The Earth	26 Proserpine	♁ Ascending Node	
♂ Mars	27 Euterpe	♂ Descending Node	
♀ Ceres	28 Bellona	N North	
♀ Pallas	29 Amphitrite	E East	
♂ Juno	30 Urania	S South	
♂ Vesta	31 Euphrosyne	W West	
5 Astrea	32 Pomona	° Degrees	
6 Hebe	33 Polyhymnia	′ Minutes of Arc	
7 Iris	34 Circe	″ Seconds of Arc	
8 Flora	35 Leucothea	D Days	
9 Metis	36 Fides	H Hours	
10 Hygeia	37 Atalanta	M Minutes of Time	
11 Parthenope	38 Leda	S Seconds	”
12 Victoria	39 Letitia	☼ Sunday	
13 Egeria	40 Harmonia	☾ Monday	
14 Irene	41 Daphne	♏ Tuesday	
15 Eunomia	42 Isis	♐ Wednesday	
16 Psyche	43 Ariadne	♑ Thursday	
17 Thetis	44 Nisa	♒ Friday	
18 Melpomene	45 Eugenia	♓ Saturday	
	46 Hestia		
	47 Aglaia		

The Symbol  $\delta$  Conjunction, or having the same Longitude or Right Ascen

" ☐ Quadrature, or differing  $90^\circ$  in Longitude or Right Ascen

„ 8 Opposition, or differing  $180^{\circ}$  in Longitude or Right Ascen.

(For explanation of Astronomical terms, see Almanack for the year 1848)

FIXED AND MOVABLE FESTIVALS, ANNIVERSARIES, &c.

Epiphany .. .. .	Jan. 6	<i>Rogation Sunday</i> .. .. .	May 29
Martyrdom of K. Charles I. .. .. .	30	<i>Ascension Day—Holy Th.</i> .. .. .	June 2
<i>Septuagesima Sunday</i> .. .. .	Feb. 20	<i>Pentecost—Whit Sunday</i> .. .. .	" 19
St. David .. .. .	Mar. 1	<i>Trinity Sunday</i> .. .. .	" 19
<i>Quinquagesima—Shrove S.</i> .. .. .	" 6	Accession of Queen Vict. .. .. .	" 20
<i>Ash Wednesday</i> .. .. .	" 9	Proclamation .. .. .	" 21
<i>Quadragesima—1st Sun.</i> .. .. .	" 13	<i>Corpus Christi</i> .. .. .	" 23
<i>day in Lent</i> .. .. .	" 17	St. John Baptist—Mid-summer Day .. .. .	" 24
St. Patrick .. .. .	" 17	Birth of Prince Albert .. .. .	Aug. 26
Annunciation—Lady Day .. .. .	25	St. Michael—Michaelm. D. .. .. .	Sept. 29
<i>Palm Sunday</i> .. .. .	April 17	Gunpowder Plot .. .. .	Nov. 5
<i>Good Friday</i> .. .. .	" 22	Birth of Prince of Wales .. .. .	" 9
St. George .. .. .	" 23	<i>1st Sunday in Advent</i> .. .. .	" 27
EASTER SUNDAY .. .. .	" 24	St. Andrew .. .. .	" 30
<i>Low Sunday</i> .. .. .	May 1	St. Thomas .. .. .	Dec. 21
Birth of Queen Victoria .. .. .	" 24	CHRISTMAS DAY .. .. .	" 25
Restoration of K. Chas. II. .. .. .	" 29		





JANUARY.

Day of Month.	Day of Week.	ANNIVERSARIES, FESTIVALS, REMARKABLE EVENTS.	SUN					MOON.					HIGH WATER AT				PLANETS.			
			Rises at Lon- don.		SETS at Lon- don.		AGE.	Rises at Lon- don.		SETS at Lon- don.		DYS.	LONDON BRIDGE.		LIVERPOOL DOCK.		Day of M.	Rise.	South.	Set.
			H. M.	H. M.	H. M.	H. M.		H. M.	H. M.	H. M.	H. M.		Morn.	Aftern.	Morn.	Aftern.				
1	S	Circumcision	8 8	12 3	4 4	3 59	6 20	9 47	1 14	27	—	0 18	9 23	9 47	—	—	1 7	29 M	11 42 M	3 55 A
2	S	2ND S. a. CHRIST.	8 8	12 4	12 4	0	7 21	10 39	1 56	28	0 45	1 9	10 10	10 32	—	—	6 48	11 2	3 17	3 17
3	M	Day breaks 6h. 2m.	8 8	12 4	4 0	1	8 11	11 30	2 52	29	1 32	1 54	10 53	11 12	—	—	11 6	27	10 38	2 49
4	Tu	Twilight ends 6h. 8m.	8 8	12 5	8 4	3	8 49	Aftern.	3 58	30	2 15	2 34	11 30	11 47	—	—	16 6	22	10 28	2 34
5	W	Dividends due	8 8	12 5	35 4	4	9 17	1 9	5 9	1	2 52	3 9	—	0 4	—	—	21 6	25	10 27	2 28
6	Th	Epiph. Twelfth D.	8 7	12 6	2 4	5	9 37	1 54	6 22	2	3 26	3 42	0 20	0 37	—	—	26 6	33	10 32	2 31
7	F	Penny Post established, 1819	8 7	12 6	28 4	6	9 53	2 37	7 34	3	3 59	4 16	0 54	1 10	—	—	1 5	45	10 12	2 39
8	S	Fire Insurance due	8 7	12 6	54 4	7	10 5	3 19	8 47	4	4 52	4 47	1 25	1 41	—	—	6 5	23	9 53	2 23
9	S	1st S. aft. EPIPH.	8 6	12 7	19 4	9	10 17	4 0	9 58	5	5 5	5 20	1 58	2 16	—	—	11 5	8	9 38	2 8
10	M	Plough Monday	8 6	12 7	44 4	10	10 27	4 41	11 10	6	5 38	5 56	2 34	2 52	—	—	16 4	56	9 26	1 56
11	Tu	Hilary Terms begins	8 5	12 8	8 4	12	10 38	5 23	Morn.	7	6 14	6 34	3 12	3 33	—	—	21 4	49	9 17	1 45
12	W	Day breaks 6h. 1m.	8 4	12 8	32 4	13	10 52	6 9	0 27	D	6 55	7 16	3 54	4 18	—	—	26 4	45	9 11	1 37
13	Th	Cambridge Lent Term begins	8 4	12 8	54 4	15	11 9	6 59	1 47	9	7 40	8 7	4 45	5 16	—	—	1 10	41	3 54 A	9 8
14	F	Oxford Lent Term begins	8 3	12 9	17 4	16	11 32	7 55	3 11	10	8 38	9 14	5 52	6 30	—	—	6 10	27	3 49	9 12
15	S	Attempt to assassinate the Emperor Napoleon, 1858	8 2	12 9	38 4	18	Aftern.	8 57	4 38	11	9 52	10 33	7 11	7 52	—	—	11 10	13	3 43	9 13
16	S	2ND S. aft. EPIPH.	8 1	12 9	59 4	19	0 56	10 3	5 59	12	11 14	11 53	8 31	9 6	—	—	16 9	59	3 37	9 16
17	M	Sun rises at Edinburgh 8h 22m	8 0	12 10	19 4	21	2 6	11 10	7 7	13	—	0 28	9 38	10 6	—	—	21 9	45	3 31	9 17
18	Tu	Prisca	7 59	12 10	39 4	22	3 35	Morn.	7 57	14	1 0	1 28	10 35	11 2	—	—	26 9	32	3 25	9 18
19	W	Sun sets at Edinburgh 4h 2m.	7 58	12 10	57 4	24	5 10	0 14	8 30	15	1 57	2 24	11 27	11 51	—	—	1 6	1 37	9 43	5 53
20	Th	Fabian	7 57	12 11	15 4	26	6 45	1 14	8 54	16	2 49	3 13	—	0 15	—	—	11 1	15	9 21	5 32
21	F	Agnes	7 56	12 11	33 4	28	8 14	2 9	9 11	17	3 37	4 0	0 38	1 1	—	—	16 0	54	9 0	5 10
22	S	Vincent	7 55	12 11	49 4	29	9 39	2 59	9 24	18	4 23	4 46	1 24	1 45	—	—	21 0	33	8 39	4 49
23	S	3RD S. aft. EPIPH.	7 54	12 12	5 4	31	11 0	3 47	9 38	19	5 7	5 27	2 5	2 24	—	—	26 0	13	8 19	4 29
24	M	Mutiny in India, 1857	7 53	12 12	20 4	33	Morn.	4 33	9 51	20	5 46	6 7	2 45	3 6	—	—	1 6	7	1 53	9 35
25	Tu	Conv. of St. Paul	7 52	12 12	34 4	35	0 21	5 18	10 5	21	6 28	6 49	3 27	3 48	—	—	11 5	45	1 32	9 15
26	W	Sundays Schools establ., 1781	7 50	12 12	47 4	36	1 39	6 5	10 21	22	7 10	7 32	4 10	4 35	—	—	16 5	22	1 11	8 55
27	Th	Twilight ends 6h. 37m.	7 49	12 13	0 4	38	2 56	6 53	10 44	23	7 57	8 27	5 5	5 41	—	—	21 5	0	0 49	8 34
28	F	Sun rises at Dublin 7h. 57m	7 48	12 13	12 4	40	4 9	7 43	11 13	24	9 3	9 41	6 19	7 0	—	—	26 4	38	0 28	8 14
29	S	Sun sets at Dublin 4h. 33m.	7 46	12 13	23 4	41	5 15	8 34	11 52	25	10 22	11 6	7 44	8 25	—	—	1 1	15	9 8 A	5 5
30	S	4TH S. aft. EPIPH.	7 45	12 13	33 4	43	6 9	9 26	Aftern.	26	11 47	—	9 2	9 31	—	—	6 0	54	8 47	4 45
31	M	Hilary Term ends	7 43	12 13	42 4	45	6 50	10 17	1 47	27	0 24	0 53	9 55	10 18	—	—	11 0	34	8 27	4 24





MARBLE BUST OF THE PRINCESS FREDERICK WILLIAM OF PRUSSIA.  
FROM "THE ILLUSTRATED LONDON NEWS."



## THE GREAT AUSTRALIAN GOATSUCKERS.

THE Bird Room in the Zoological Society's Gardens was formerly inhabited by parrots only, brilliant in colour, but noisy beyond all bearing. They still occupy the largest portion of it, as will be readily supposed when we state that upwards of seventy species of macaws, cockatoos, parakeets, and parrots are assembled there. On the south side of the room, however, have recently been placed some large cages, containing choice specimens of the Australian Goatsuckers, which form the subject of our present illustration.

Cuvier's Podargus is an inhabitant of Van Diemen's Land, which, says Mr. Gould, in his great work on the birds of Australia, "if not its exclusive habitat, is certainly its great stronghold, it being there very numerous, as evidenced by the frequency with which I encountered it during my rambles in the woods; and its distribution over the island is so general that to

particularise localities in which it may be found is quite unnecessary, it being equally abundant near the coast as well as in the interior. I observed it both among the thick branches of the Casuarinae and on the dead limbs of the Eucalypti: it appeared, however, to evince a greater partiality for the latter, which it closely resembles in colour, and, from the position in which it rests, looks so like a part of the branch itself as frequently to elude detection: it is generally seen in pairs sitting near each other, and frequently on the same branch. Like the other members of the genus, this bird feeds almost exclusively on insects, of which Coleoptera form a great part. It is strictly nocturnal in its habits; and, although not so active as the true Caprimulgi, displays considerable alertness in the capture of its food, presenting a striking contrast to its inertness in the daytime, when it is so drowsy that it can scarcely be aroused from its slumbers, that portion of its existence being passed in a sitting posture across a dead branch, perfectly motionless, and with the bill pointing upwards; it never



THE GREAT AUSTRALIAN GOATSUCKERS (PODARGUS CUVIER), AT THE ZOOLOGICAL SOCIETY'S GARDENS, REGENT'S PARK.  
FROM "THE ILLUSTRATED LONDON NEWS."

flies by day unless roused from the branch on which it is sitting, and this is not easily effected, as neither the discharge of a gun nor any other noise will cause it to take wing. It is frequently captured, and kept in captivity, where it excites attention more from the sluggishness of its nature and the singular position it assumes than from any other cause. Raw meat forms a suitable substitute for its natural food. In captivity it will pass the entire day in sleep on the back of a chair, or any other piece of furniture on which it can perch. Like the owl, it is considered by some a bird of ill omen, principally from the extraordinary sound of its hoarse, unearthly cry, which resembles the words 'more pork.' It not only approaches the immediate vicinity of the houses, but emits this sound while perched in their verandahs and on the buildings themselves, and it is often to be seen perched on the tombstones of the churchyard."

**DAMP IN WALLS: WALL PAPERS.**—Paper-hangings in themselves, as materials, maintain a higher temperature than the walls or partitions on which they may be placed; then less condensation of vapour takes place, and the dampness is removed from the room as the process of ventilation goes on. To a great extent paper is an absorbent, but then the moisture is given off in the same form, or may escape by other means. The reason why dark papers are drier than light ones is still due to the same action. All dark materials imbibe more light and heat, and will thus maintain a higher temperature; besides which, many of the very light-coloured papers (particularly the better ones) have a glazed or satin face,

which is produced by the use of a large quantity of China clay—a material that from its coldness at once causes condensation of moisture, and thus facilitates its own decay. The health of thousands, both among the rich and poor, has been affected by living in cold, damp houses, the dampness causing decomposition of the vegetable matter in the paper or the colouring on the walls, and the putrefaction of the animal substances used as a vehicle for the colours: thus the atmosphere becomes impregnated with impurities, is rendered unfit for respiration, and is unequal to the sustenance of human life in a healthy form.

**FERRUCYANIDE OF POTASSIUM FOR THE REMOVAL OF RUST-SPOTS IN WHITE LINEN.**—The employment of ferrocyanide of potassium may often help us out of great difficulties in the case of rust-spots in linen. It is added in a comparatively small quantity to the water, acidulated with sulphuric acid, and the linen is then moved about in the fluid. When all the yellow has disappeared, and a clear blue made its appearance, the linen is rinsed and treated with solution of carbonate of potash. Here the blue colour disappears, and with it a great part of the yellow, which only remains in spots. These are very easily got rid of by dilute sulphuric acid alone.

**THE INK OF THE ANCIENTS.**—By making a solution of shellac with borax, in water, and adding a suitable portion of pure lampblack, an ink is producible which is indestructible by time or by chemical agents, and which, on drying, will present a polished surface, as with the ink found on the Egyptian papyri.



# THE ILLUSTRATED LONDON ALMANACK FOR 1859.

## JANUARY.

THE SUN was situated at its shortest distance from the Earth at 11h. 33m. A.M. of December 31. It is now south of the Equator, and moving northwards. It passes from the sign of Capricornus to that of Aquarius at 48 minutes past noon of the 20th.

The Moon is near Venus on the evening of January 1st, near Mercury on the morning of January 3rd, near Mars on the morning of January 9th, near Uranus on the morning of January 15th and near Jupiter on the evening of the same day, near Saturn at 5 P.M. of the 19th, near Venus on the morning of the 30th, and near Mercury on the evening of the 31st. It is at its greatest distance from the Earth at noon of the 4th and at 4 P.M. of the 31st, and at its shortest distance from the Earth at 4 P.M. of the 18th.

New Moon occurs at 26 minutes past 5 on the morning of the 4th.

First Quarter " 23 " 7 on the morning of the 12th.

Full Moon " 48 " 11 on the evening of the 18th.

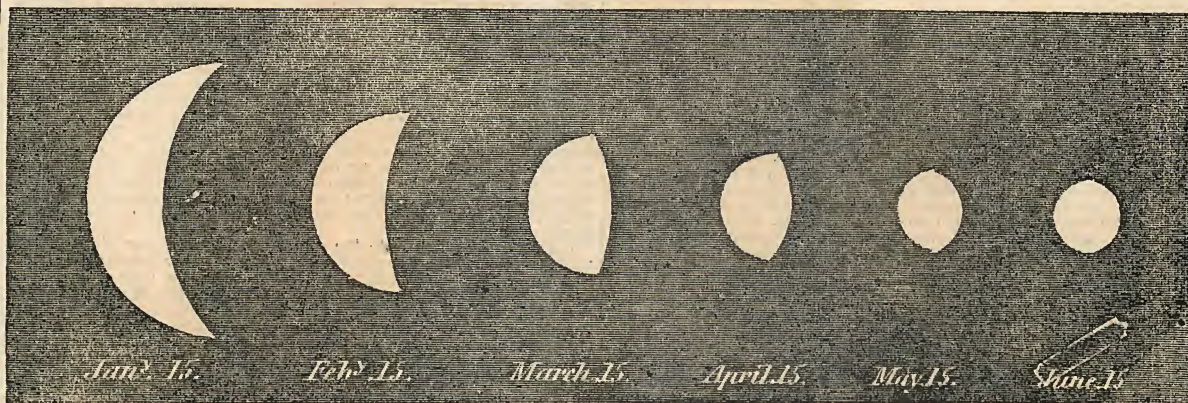
Last Quarter " 45 " 8 on the evening of the 25th.

MERCURY remains in the constellation of Sagittarius throughout the month, but is badly situated for observation. The most favourable time for telescopic examination will be a few days previous and following January 21, when it is at its greatest westerly elongation. It is a little north of the Moon on the morning of January 3, stationary on the morning of the 10th, and again about three degrees north of the Moon on the evening

of the 31st. At 4h. 10m. P.M. of the 14th it is close to Mu Sagittarii, and a few hours later directly south of that star.

VENUS is a very brilliant object throughout this month, although situated not much above the horizon. It is now the morning star, and arrives at its greatest brilliancy on the 18th. It is near the Moon on January 1st and 29th, stationary on the morning of the 3rd, and at its shortest distance from the Sun on the morning of the 12th. The phases of Venus are always a subject of much interest to the telescopic observer, but, when viewed under favourable circumstances and proper optical means, it becomes still more instructive and entertaining, and almost gives demonstrative proof of the similarity of the Earth, with its accompanying features of atmosphere, mountains and valleys, day and night, and the twilight intervening between the two, with at least that of its next neighbour in the solar system. It remains in the constellation of Ophiuchus throughout the first half of the month, and is afterwards in that of Sagittarius.

MARS is situated in the constellation of Aquarius at the beginning and middle of the month, and in that of Cetus at the end. It is badly situated for observation, and the diameter of its disc is not more than five seconds of arc. It is close to Lambda Aquarii on the morning of the 6th, about two degrees south of the Moon on the morning of the 9th, close to Phi Aquarii on the morning of the 11th. The figure of the planet does not appear perfectly circular at present, the proportion of the one illuminated diameter to the other being in the ratio of 92 to 100.



PHASES OF VENUS IN 1859.

JUPITER continues to be favourably situated for observation, and, although considerably past opposition, it is still a fine object in the telescope, and is the most lustrous of the heavenly bodies during the evening. It remains in the constellation of Taurus throughout the month. It is five degrees and a half south of the Moon at midnight of the 12th.

SATURN remains visible throughout the whole of the night, and is well situated for observation. In the spring of 1858 it was situated in the same line with Procyon and Pollux, and, although considerably past the time of opposition, in April was brighter than either of those objects, whilst its colour was of a deeper red than Pollux. It is now situated in the constellation of Cancer. At 5 P.M. of the 19th it is close to the Moon, being then a degree south. It is in opposition and at its brightest phase on the 29th.

URANUS is situated in the constellation of Taurus throughout the month. It is five degrees and a half south of the Moon at 4 A.M. of the 15th.

ECLIPSES OF JUPITER'S SATELLITES.—January 3rd, 1h. 2m. morning, reappearance of first satellite; January 4th, 7h. 31m. P.M., reappearance of first satellite; January 7th, 3h. 54m. morning, reappearance of second satellite; January 10th, 2h. 57h. morning, reappearance of first satellite; January 10th, 5h. 11m. afternoon, reappearance of second satellite; January 11th, 9h. 26m. afternoon, reappearance of first satellite; January 17th, 7h. 47m. P.M., reappearance of second satellite; January 18th, 11h. 22m. P.M., reappearance of first satellite; January 20th, 5h. 23m. and 7h. 53m., disappearance and reappearance of third satellite; January 20th, 5h. 50m. P.M., reappearance of first satellite; January 24th, 10h. 23m. afternoon, reappearance of second satellite; January 26th, 1h. 17m. morning, reappearance of first satellite; January 27th, 7h. 46m. P.M., reappearance of first satellite; January 27th, 9h. 24m. and 11h. 55m. afternoon, disappearance and reappearance of third satellite.

The planet VENUS is now the morning star, and arrives at its greatest brilliancy on January 18th, when its appearance in a telescope will be nearly the same as that represented in the diagram for January 15th. It does not become favourably situated for observation until April, when it is removed too great a distance from the Earth to be an object of interest in the telescope. During the present month its greatest altitude above the horizon does not exceed twenty degrees, which is scarcely sufficient to remove it above the mists of the horizon at this time of the year. The most favourable time for examining its disc for spots on its surface, the broken line of the inner parts of its crescent, and the blunted appearance of its horns, will be between nine and ten o'clock in the morning, when it will be found that the daylight is rather an advantage than otherwise in removing a portion of the glare of light which is more or less present even in the best telescopes.

The temperature, which has been declining since August, in January arrives at the minimum, and we may really consider that the winter quarter commences, to all intents and purposes, on the 21st of December, even if we hold that it does not end on the 21st of March, when the easterly winds are most prevalent. During November and December the weather is occasionally very temperate, although dark and gloomy; but on the three first months of the year a warm day is an exception rather than otherwise. The mean temperature during January is 36.9 degrees, but ranges in different years between 29.3 and 44.7 degrees. The mean of the highest temperature during the day is 40.8 degrees, and the mean of the lowest during the night 32.7 degrees; whilst the mean range of the thermometer is from 51.0 to 19.6 degrees. The highest temperature of January is 57.5 degrees, and the

lowest 5 degrees. The weather during January is occasionally very mild, the prevailing winds being from the south and south-west, although those winds are generally in excess of the northerly ones. When the wind passes to the N.E. we may expect very keen and sharp winds, and very severe frosts during the clear moonlight nights; and, even when in the N.W. quarter, the cold is very severe and keen. The fall of rain and snow is moderate in respect of quantity, though there may be many wet days. The mean fall is 1.452 inch. The quantity never equals that which sometimes occurs in other months; that is to say, the greatest known fall, which is 2.313 inches, is less than that of any other. The least-known fall is .360 inch. Violent thunder-storms sometimes, though not very often, happen in this as in the other winter months. Such a storm occurred on the 3rd of January, 1841, in the interval (of a few days only) between two periods of sharp frost, and on the occasion of the wind, which had been previously S.W., shifting rather suddenly to N.W. During February the mean temperature rises slightly, although this month is generally more variable than January, and the frosts and snow even more abundant. The days are generally warmer than those of January; but the nights are equally cold. The northerly winds still prevail, and generally exceed those from the south, although the latter are still very common; and, when the wind is from the latter quarter, mild and overcast weather, accompanied with rain, may be expected. But, as during January, when the wind comes in keen blasts from the north and north-east, we need expect nothing but clear sky and severe frosts, although the air is then very dry and bracing. The mean temperature during February is 38.1 degrees, the mean of the highest during the days rising to 43.4 degrees; whilst the mean of the coldest temperatures during the night is 33.1 degrees. The mean range of the thermometer is between 53.6 and 22.8 degrees. It sometimes happens, although very rarely, that the highest temperature during this month will be as high as the average temperature in the warmest time of the year. It has happened that the temperature has sometimes fallen to 13 degrees. The quantity of rain that falls this month rather exceeds, on the average, that of January. The mean quantity is 1.502 inch. The greatest quantity ever measured is 3.212 inches; the least is .270 inch. The month of March is generally the most dreaded of any in the year by the weak and infirm, and the cold, dry, and easterly winds make it very unpleasant to those unable to take their part in robust exercise out of doors, whilst the nakedness of the land at this time of the year is as unpleasant as in any of the other winter months. The mean temperature of this month is 41.7 degrees, the mean maximum of the day temperature being 48.2 degrees, that of the mean minimum of the night being 35 degrees. The range of temperature during this month is very considerable, being sometimes as high as 69 degrees, and sometimes as low as 7 degrees. The mean height of the barometer is 29.905 inches. The mean range is 1.263 inches. The greatest recorded height is 30.704 inches; the lowest 28.625 inches. The notoriously cold winds of March are mostly from the N.W. or N.E.; and northerly winds as a whole prevail over the southerly in the ratio of six to five. These winds are of great service in drying up the superabundant moisture of the two preceding months, and thereby fitting the ground for the operations of the farmer. After the cold winds of this month have passed away we may expect scarcely any more frost or snow, although, notwithstanding the sun shining for more than twelve hours in our latitudes, the warm weather has not yet returned.



## BRITISH BIRDS OF THE SEASON.

[The proprietor of the ILLUSTRATED LONDON ALMANACK having requested me to point out which of the birds of our islands would form appropriate illustrations of the bi-monthly seasons, and to suggest and revise some popular essays respecting them, I have acceded to the request, with a view to obliging Mr. Ingram, and of increasing, if possible, a taste for ornithology. Further than pointing out to Mr. Wolf the birds which I considered it would be desirable to figure, and to Mr. Martin the kind of descriptions required, I lay no claim to any interest these essays may elicit: whatever merit they possess is due to those gentlemen.]

JOHN GOULD,  
20, Broad-street, Golden-square.]

## JANUARY AND FEBRUARY.

THE new year begins in midwinter; and most appropriate is the name of the first month, January, from the two-faced deity Janus; one face directs its gaze upon the irrevocable past, and stern and melancholy is its expression; the other looks onward to the future, and the features are lighted up by hope. The moral implied appeals to every heart—we should weaken its force by comment. This is the dead season of the year; so, at least, is it often called:—

the cheerless empire of the sky  
To Capricorn the Centaur Archer yields,  
And fierce Aquarius stains the inverted year.  
Hung o'er the farthest verge of heaven, the sun  
Scarcely spreads through ether the dejected ray;  
Faint are his beams; and ineffectual shoot  
His struggling rays in horizontal lines  
Through the thick air; as, cloth'd in cloudy storms,  
Weak, wan, and broad, he skirts the southern sky.

Yet to the naturalist this is not so dead a season as the unobservant may imagine. Walk abroad through country hedgerows, woods, and copses; or along the margin of the bubbling stream. Leafless, it is true, are the trees, upstanding like giant skeletons, with every branch and twig clear and defined against the dull, grey sky; but look at the massive stem: there green and grey mosses, and many-tinted lichens, in full luxuriance, adorn the bark, and start from every crevice—attractive to the painter's eye. Look, too, at our evergreen shrubs and trees, that now contrast so favourably with the deciduous species stripped of their foliage. Up the tall trunk of the elm wreaths the green ivy, embowering its topmost branches, as if desirous of throwing a sheltering mantle over them. Up rises the tall holly, with its glossy leaves and scarlet clusters of berries, a welcome provision for many a bird, in conjunction with those of the mountain-ash, and the hawthorn. On the old, gnarled apple-tree the mistletoe, that sacred parasitic plant, enshrouds the moss-grown branches—sometimes, as we have seen, altogether hides them. Who knows not the mistletoe, with its singular leaves and its snowy berries? These berries, succulent with a viscous pulp, are the favourite food of the thrush tribe, at least of one species, by whose agency the propagation of the curious parasite is said to be maintained. Once revered by the Druids of old, the mistletoe bush has not even yet in these degenerate days lost all its magic influence: it has its worshippers; and prose and poetry have been alike dedicated to its virtues. Of the laurel and its kindred, with other ornamental evergreens of the cultivated lawn, nothing need be said.

Thus, even as far as natural vegetation is concerned, this is not altogether a dead season. Still less so is it if we turn from the vegetable to the animal kingdom. In contemplating the aspect of nature at any portion of the year we cannot dissociate these two kingdoms. We ask, therefore, no pardon for the foregoing comments: they tend to form a brief and sketchy prelude to the more immediate object before us—namely, the presentations of animal life in winter within our island.

Nature does not die without leaving a provision for the maintenance of the species; so, to consider the course of nature in another point of view, the months of the year do not accomplish their journey without a conjunct influence of heat and cold, rain and frost, telling upon vegetables and animals, the latter of which so largely and directly derive their support from the former that we cannot avoid a glance at them.

Thus, then, the depth of winter does not necessitate the starvation of whole tribes of birds and quadrupeds; but it does necessitate some means for the preservation of such as derive their support either from perishable orders of plants or from the failure of insects which feed on these plants, whose blossoms are successively the glory of spring, summer, and autumn.

There are, then, two great laws which more or less decidedly manifest in their operation throughout all latitudes, especially in the northern and temperate, the end of their operation being the preservation of life.

These two laws are migration and hibernation. It is a remarkable fact, as has been observed by Mr. Gould, in his great work on the Birds of Europe, that the situation and mean temperature of the British islands render them peculiarly favourable for the study of these two fundamental laws, from the influence of which we must not exclude the vegetable world, more especially as regards hibernation.

Let us take each of these laws into direct consideration, illustrating our comments by interesting examples. The law of migration, from its general prevalence, may perhaps claim precedence.

There are two great seasons of migration to and from our island, viz.: spring and autumn. The spring influx consists of birds returning from the southern latitudes, which have afforded them a temporary asylum. The autumnal influx consists of birds which, having bred in the northern latitudes—even within the arctic circle—are drawn to us, as to a delightful climate, by the prospect of snug winter quarters; our salt marshes, our fresh-water fens and lakes; and certainly the embouchures of our rivers are unfrozen, while our berry-laden hedge-rows and copses, hips and haws, ivy and privet berries in abundance; our fallow-fields, our uplands of clover, of turnips, and artificial grasses, offer at once a good harvest, and a comfortable asylum.

It is midwinter. Our summer visitors have long since vanished. The swift, one of the latest birds to come, one of the earliest to depart, has long since left us; the cuckoo and the wrenneck, followed; the nightingale has some months since given us a parting husky croak (for to such his rich voice degenerates); the blackcap, the flycatcher, the fauvette warblers, and many of their kindred, have bid us farewell. The vast flights of swallows and martins surprise us as they wheel about, till evening shuts in day; and in vain may we look for the wheatear on the Sussex Downs. We expressly mention these birds out of a long list, because it will appear that all are insectivorous birds, some essentially—although

there are some others, as the blackcap, which add luscious garden fruits, and even succulent peas, to their diet. It is then of insectivorous birds that our orchards and hedgerows are now deprived. Their music has passed away. They fled towards the intertropics before the gales of the past autumn. But their place is not unfilled; the chilly gales before which they quailed and fled have brought from the ice-locked regions other tribes, differing greatly (with a few exceptions) as to habits and instincts from our departed birds of summer.

Turn we now to our illustrative plate. Under the arched covert of tall reeds, bending beneath broad flakes of frozen snow, is portrayed a group of wild swans, with other waterfowl; while, perched above, a kingfisher looks down intently on the open spaces of the water icebound along its sheltered margin.

It is in high air, sometimes barely within human vision, but always in long, single files, or in a wedge-like figure, two distinct files converging to a point (that point being a leading marshal), that the waterfowl perform their great migratory movements. As they proceed along they utter from time to time discordant, hoarse, or clangorous cries, which, softened by the distance of 2000 feet, fall with an indistinct murmur on the listening ear. Having attained their destined localities, they gradually descend from their exalted pathway, and split up into smaller or larger flocks, according to circumstances; each flock maintaining a watch-and-ward system; for wary, suspicious, and vigilant are our waterfowl, as the shooter and the decoy-man can well attest. Different are the localities which the different species affect. Some choose lakes and estuaries, some reedy marshes following the course of rivers, and some make the upland corn-fields and open turnip and clover acres, their habitual feeding-grounds, while their nightly roosting-place is often at a considerable distance. Such is the habit of the bean-geese, our ordinary winter visitor, and of which numbers at this season may be often seen in the London poultry markets. This species, we may remark *en passant*, is not the origin of our domestic tenant of the farmyard, which derives its origin from the grey lag. This, in former times, before industry had drained our vast meres and fens, was a permanent resident; and it still visits us from the higher latitudes, though not so abundantly as its smaller relative, the bean-geese, which is a more decidedly northern species. But we must pass over the wild swan, called also the hooper, whooper, or whistling swan; der singschwan of the Germans (*Cygnus ferus*).

The visits of the hooper to the southern counties of our island depend much on the severity of the season; for, if the weather be mild, it contents itself with the lakes and estuaries of Scotland and the northern border districts. Its appearance in the Orkneys and Western Isles is regular; but in seasons of unusual severity, when the waters whence it derives its sustenance (viz., the roots, stems, and leaves of aquatic plants) are frozen up, it then changes its quarters for more favourable localities, where open lakes, marshes, fen-lands, intersected by deep and wide drainage cuttings, and low, extensive, inundated meadows, invite the flocks to sojourn. But few return northwards; the flock is harassed, vigilance is met by vigilance, and the gun does its destructive work. No winter passes without the exposure of British-killed wild swans in the London markets; and there are records of seasons of unusual severity during which these birds were extraordinarily abundant. In 1823 sixty were there exposed for sale in one day; but hundreds must have been killed over the country of which we have no returns.

In the foreground of our Plate are two species of duck, which we are called upon to notice—namely, the common wild duck and the teal.

The wild duck, or mallard (the origin of our domestic stocks), breeds plentifully in our island; at the same time, winter brings thousands of this species from the more northern latitudes of Europe to our comparatively temperate shores. This is not a solitary example, it obtains among birds of a very different order. The goldencrest, the skylark, the thrush, and perhaps some others, are examples, including even the redbreasts—for in northern Europe this familiar bird is migratory, leaving Germany at the end of October, and Denmark, Sweden, and Norway, at a still earlier period.

The teal, like the mallard, breeds on the marshes and along the water-courses throughout the northern counties, we may perhaps say throughout England generally; still, it is one of our winter visitors.

In our characteristic plate appears, as we have said, the river-haunting kingfisher. There are many birds which perform within our islands a partial migration, changing their quarters according to the season, and not unfrequently, in some cases at least, joined by foreign-bred relatives. As an instance in point we may adduce the peewit or lapwing. These well-known birds are spread over all parts of our island, where suitable localities afford them a congenial breeding-place. They abound in the fenny lands of Lincolnshire and Cambridge, in the downs and warrens of Norfolk, and myriads are spread over the large commons and oozy moorlands of our central and northern counties. As winter comes, on the multitudinous families associate in large flocks (their frost-bound summer breeding-grounds no longer supplying them with food), and wing their way to the coast. The low salt marshes and long stretches of oozy ground along the shore now afford them a never-failing supply.

Of numbers of our feathered winter visitors we shall not now speak; nor shall we now comment upon the habits of those who, permanently residing with us, brave our biting blasts. Their turn for notice will come in due time.

How expansively might we not dilate upon the hosts of our winter sojourners—some tenanted fresh waters, others the sea along our coasts, low, or rocky and boldly precipitous, but space forbids. So far, however, have we illustrated the law of migration. But we must not forget that we have to comment on another law—namely, hibernation.

Where are our reptiles? Where many of our little quadrupeds, as the bat, the hedgehog, and the dormouse? All are in a state of torpor, held in a trance, each in a retreat according to its kind. Let us await their revival, and then enter into the philosophy of the condition from which they have just passed. March will soon come; for February is closing—February, derived from Februa, one of the names of the goddess Juno. Our Saxon forefathers called it sprout-kale month, for the kale and cabbages of the garden now begin to sprout, giving decided promise of a general revival of nature. Already are the snowdrop and the violet in blossom, and the leafless twig of the mezerion is ornate with flowers. Symptoms of a great change at hand are apparent, definite symptoms, which cannot be mistaken. There is a swelling of the buds of the trees, there is a change in the character of the weather, and there is a restlessness of manner about our winged winter visitors, as if they were conscious of some great coming event for which all their energies are required. They have received a call from their native homes—they have heard a voice which we cannot hear, and which they cannot but obey: it is the voice of Instinct.



# THE ILLUSTRATED LONDON ALMANACK FOR 1859.

## PUBLIC ACTS OF PARLIAMENT OF THE LAST SESSION,

PASSED IN THE 21ST AND 22ND YEARS OF HER MAJESTY'S REIGN.

*\*\* The figure before each Act denotes the chapter, and the date after each Act records the exact time of its passing.*

Cap. 1. An Act to ... annul the Bank of England in respect of the Issues of their Notes, and to Authorise Further Issues for a limited Time. Dec. 12, 1857.

2. An Act to Settle an Annuity of £1000 on Lady Havelock, the great General's Widow, and a like Annuity on Sir Henry Marham Havelock, in consideration of the General's eminent Services. March 22, 1858.

3. An Act enabling the East India Company to Raise Money in the United Kingdom for the Government of India. March 22, 1858.

4. An Act to Continue to March, 1859, an Act of the last Session to Authorise the Embodiment of the Militia. March 25, 1858.

5. An Act to Apply £10,000,000 out of the Consolidated Fund to the Service of the Year 1858. March 26, 1858.

6. An Act to Apply £500,000 out of the Consolidated Fund to the Service of the Year ending March 31, 1858. March 26, 1858.

7. The usual Annual Act for the Regulating the Royal Marine Forces while on Shore. March 26, 1858.

8. An Act to Authorise Inclosing certain Lands specified, in different Counties, pursuant to the Inclosure Commissioners' Report. March 26, 1858.

9. The usual Annual Act for Punishing Mutiny and Desertion, and for the better Payment of the Army and for their Quarters. March 26, 1858.

10. An Act to Confirm a Provisional Order of the General Board of Health, applying to Skipton, in Yorkshire, and to Declare the Limits of Toxteth Park, in Lancashire, for the purposes of the Health Act. May 11, 1858.

11. An Act to Repeal the Stamp Duties payable on Matriculation and Degrees in the University of Cambridge. May 11, 1858.

12. An Act to Remove the Customs Duties on Chloride of Lime and Platina Wire, and to Alter the Customs Duties on Felt Bonnets, Caoutchouc, and Stearine Candles. May 11, 1858.

13. An Act for Raising £20,000,000 Exchequer Bills, for the Service of 1858. May 11, 1858.

14. An Act for Raising £2,000,000 by Exchequer Bonds. May 11, 1858.

15. An Act for Granting certain Additional Rates and Duties of Excise on Spirits in Ireland and the Channel Islands. May 11, 1858.

16. An Act to further Amend the Customs Duties. May 11, 1858.

17. An Act to Apply £11,000,000 out of the Consolidated Fund to the Service of 1858. May 21, 1858.

18. An Act to Effect an Exchange between Chelsea Hospital and the Chelsea Waterworks of Lands in the Parishes of St. George, Hanover-square, and St. Margaret, Westminster, in the County of Middlesex. May 21, 1859.

19. An Act to Continue to 1863 the 3 and 4 Vic., c. 110, An Act to Amend the Laws Relating to Loan Societies. May 21, 1858.

20. An Act for Granting a Stamp Duty of a Penny on Cheques. May 21, 1858.

21. An Act to Confirm a Sale by the Commissioners of Works of certain Lands to the Commissioners of Chelsea Hospital. June 14, 1858.

22. An Act to Abolish Franchise Prisons. June 14, 1858.

23. An Act to Abolish the Tolls on Portunna Bridge, Ireland. June 14, 1858.

24. An Act to Reduce to Sixpence the Stamp Duty on Passports. June 14, 1858.

25. An Act to Amend the 324 Vic., c. 92, Relating to Non-Parochial Registers and the Marriage Acts, and for Registering Births, Marriages, and Deaths in England, and concerning Vaccination. June 14, 1858.

26. An Act to Abolish the Property Qualifications of Members of Parliament. June 28, 1858.

27. An Act to Amend the Chancery Procedure in England, including the County Palatine of Lancaster, and in Ireland. June 28, 1858.

28. An Act to Continue till 1860 the Peace Preservation (Ireland) Act, 1856. June 28, 1858.

29. An Act for Confirming a Scheme of the Charity Commissioners for Sir Eliab Harvey's Charity in the Town of Folkestone. June 28, 1858.

30. An Act for Confirming a Scheme of the Charity Commissioners for certain Municipal Charities in the City of Bristol. June 28, 1858.

31. An Act for Confirming a Scheme of the Charity Commissioners for certain Charities in the Parishes of St. Nicholas and St. Leonard, in the City of Bristol. June 28, 1858.

32. An Act to make Valid certain Acts of Sir William Yardley, late Chief Justice of Bombay. July 12, 1858.

33. An Act for the better Management of County Rates. July 12, 1858.

34. An Act to Continue for another Year The Railways Act (Ireland), 1851. July 12, 1858.

35. An Act to Remove Doubts as to the Operation of a Convention between her Majesty and the Emperor of the French relative to Portendic and Albreda. July 12, 1858.

36. An Act to Release the Lands of the Commissioners for the Exhibition of 1851 upon Repayment of Moneys Granted in Aid of their Funds. July 12, 1858.

37. An Act to Provide for the Allotment of Commonable Lands within the Boundaries of Hainault Forest, in Essex. July 23, 1858.

38. An Act to Repeal certain Provisions for the Issue out of the Consolidated Fund of Fixed Amounts for the Reduction of the Funded Debt. July 23, 1858.

39. An Act to Suspend the Making of Lists and Ballots for the Militia of the United Kingdom. July 23, 1858.

40. An Act to Enable the Commissioners of Works and Buildings to Acquire the Theatre Royal, Edinburgh, and Adjacent Property, for the Erection of a new General Post Office, and for other Purposes. July 23, 1858.

41. An Act to Extend to Two Years, from the Date of the Awards, the Time for making Advances towards Navigation in Ireland under the 19 and 20 Vic., cap. 62. July 23, 1858.

42. An Act for Shortening the Time of Prescription in certain Cases in Ireland. July 23, 1858.

43. An Act to Amend the Municipal Franchise in certain cases. July 23, 1858.

44. An Act to Give to the Universities of Oxford, Cambridge, and Durham, and the Colleges in those Universities, and to the Colleges of Winchester and Eton, power to Sell, Enfranchise, and Exchange Lands; to Grant Leases, and to deal with the Interests of their Lessees. July 23, 1858.

45. An Act to Amend the Provisions of the 6 and 7 William IV., cap. 19, An Act for separating the Palatine Jurisdiction of the County Palatine of Durham from the Bishopric of Durham, and to make further Provisions with respect to the Jura Regalia of the County of Durham. July 23, 1858.

46. An Act to Remove Doubts as to the Validity of certain Marriages of British Subjects Abroad. July 23, 1858.

47. An Act to Amend the Law of False Pretences with regard to Bills and Notes. July 23, 1858.

48. An Act to Substitute One Oath for the Oaths of Allegiance, Supremacy, and Abjuration, and for the Relief of her Majesty's Subjects professing the Jewish Religion. July 23, 1858.

49. An Act to Provide for the Relief of her Majesty's Subjects professing the Jewish Religion (by which they may now be enabled to sit in Parliament). July 23, 1858.

50. An Act to Continue until August 1, 1859, certain Temporary Provisions concerning Ecclesiastical Jurisdiction in England. July 23, 1858.

51. An Act further to Continue till September 1, 1859, the Exemption of certain Charities from the Operation of the Charitable Trusts Acts. July 23, 1858.

52. An Act to Appoint a Clerk of Nisi Prius for the Consolidated Nisi Prius Court in Ireland, and to make Provisions for the Appointment of Tipstiffs in the Superior Courts of Common Law, and Equity in Ireland. July 23, 1858.

53. An Act to Continue till August 1, 1859, Appointments under the Act for Consolidating the Copyhold and Inclosure Commissioners, and for Completing Proceedings under the Tithe Commutation Acts. July 23, 1858.

54. An Act to Indemnify such Persons in the United Kingdom as have omitted to Qualify themselves for Offices and Employments, and to Extend to the 25th March, 1859, the Time limited for those Purposes. July 23, 1858.

55. An Act to Revive and Continue for Three Years the 18 and 19 Vic., cap. 4, An Act amending the Act for Limiting the Time of Service in the Army. July 23, 1858.

56. An Act to Amend the Law relating to the Confirmation of Executors in Scotland, and to Extend over all the United Kingdom the effect of such Confirmation, and of Grants of Probate and Administration. July 23, 1858.

57. An Act to Amend the 5 and 6 Vic., c. 108, An Act for enabling Ecclesiastical Corporations, Aggregate and Sole, to Grant Leases for Long Terms of Years. July 23, 1858.

58. An Act for the Future Appropriation of the Tithe of Lead Ores in Stanhope and Wolsingham, in Durham, belonging to the Rectors of those Parishes, subject to the Existing Incumbencies, and for Making other Provisions for the Endowment of the Rectories in lieu thereof, and for other Purposes. July 23, 1858.

59. An Act further to Amend the Law relating to the Erection and Endowment of Churches, Chapels, and Perpetual Curacies in Ireland. July 23, 1858.

60. An Act to Amend the Joint-Stock Companies Acts, 1856 and 1857, and the Joint-Stock Banking Companies Act, 1857. July 23, 1858.

61. An Act to Authorise the Inclosure of certain Lands, specified in different Counties, pursuant to a Special Report of the Inclosure Commissioners. August 2, 1858.

62. An Act to Continue to the 1st Sept., 1859, certain Acts to Prevent the Spreading of Contagious or Infectious Diseases among Sheep, Cattle, and other Animals. August 2, 1858.

63. An Act to Continue to the 1st Oct., and 1st Nov., certain Turnpike Acts in Great Britain. August 2, 1858.

64. An Act to make further Provision for the Practice of Vaccination in Ireland. August 2, 1858.

65. An Act to Amend an Act of the last Session, to Render more Effectual the Police in Counties and Burghs in Scotland. August 2, 1858.

66. An Act to Amend the 9 and 10 Vic., c. 39, An Act to Abolish Foot-Passenger Tolls on Chelsea-bridge, after Payment of the £50,000 and Interest. August 2, 1858.

67. An Act to Repeal certain Enactments requiring Returns to be made to one of the Secretaries of State. August 2, 1858.

68. An Act to Amend the Law concerning Detached Parts of Counties. August 2, 1858.

69. An Act to Impose Fees on the Branding of Barrels under the Acts concerning the Herring Fisheries in Scotland. August 2, 1858.

70. An Act to Amend the 5 and 6 Vic., cap. 100, An Act to Consolidate and Amend the Laws Relating to the Copyright of Designs for Ornamenting Articles of Manufacture. August 2, 1858.

71. An Act to Substitute in certain Cases the Bishop of one Diocese for the Bishop of another as a Trustee of Certain Trusts. August 2, 1858.

72. An Act to Facilitate the Sale and Transfer of Land in Ireland. August 2, 1858.

73. An Act to Amend the Law concerning the Powers of Stipendiary Magistrates and Justices of the Peace in certain Cases. August 2, 1858.

74. An Act for the Rearrangement of the Districts of the County Courts among the Judges thereof. August 2, 1858.

75. An Act to Amend the Law Relating to Cheap Trains, and to Restrain the Exercise of certain Powers by Canal Companies being also Railway Companies. August 2, 1858.

76. An Act to Simplify the Forms and Diminish the Expense of Completing Titles to Land in Scotland. August 2, 1858.

77. An Act to Amend and Extend the Settled Estates Act of 1856. August 2, 1858.

78. An Act to Enable the Committee of both Houses of Parliament to Administer Oaths to Witnesses in certain Cases. August 2, 1858.

79. An Act to Amend the Law Relating to the Crossing of Cheques. August 2, 1858.

80. An Act to Confirm Certain Provisional Orders made under the 14 and 15 Vic., c. 38, An Act to Facilitate Arrangements for the Relief of Turnpike Trusts. August 2, 1858.

81. An Act for Confirming a Scheme as Amended of the Charity Commissioners for Cowley's Charity, in the Parish of Swineshead, in the County of Lincoln. August 2, 1858.

82. An Act to Defray the Charge of the Pay, Clothing, and Contingent and Other Expenses of the Disembodied Militia in Great Britain and Ireland: to Grant Allowances, in certain Cases, to Subaltern Officers, Adjutants, Paymasters, Quartermasters, Surgeons, Assistant Surgeons, and Surgeons Mates of the Militia; and to Authorise the Employment of the Non-Commissioned Officers. August 2, 1858.

(Continued on page 14.)





Day at Month	Day of Week	ANNIVERSARIES, FESTIVALS, REMARKABLE EVENTS.	SUN.						MOON.						HIGH WATER AT								PLANETS.																
			Rises at London.			SOUTH.			Sets at London.			Rises at London.			SOUTH.			Sets at London.			AGE.	LONDON BRIDGE.				LIVERPOOL DOCK.				Day of m.	Rise.			South.			Set.		
			H.	M.	S.	H.	M.	S.	H.	M.	S.	H.	M.	S.	H.	M.	S.	H.	M.	S.		H.	M.	S.	H.	M.	S.	H.	M.		S.	H.	M.	S.	H.	M.	S.		
1	W	Day breaks 5h. 44m.	7	42	12	13	51	4	47	7	21	11	5	2	57	28	1	17	1	40	10	40	10	59	Mercury.	{	1	6	42	M	10	41	M	2	40	A			
2	Tu	Purificat. Candlemas Day	7	40	12	13	59	4	49	7	44	11	52	4	11	29	2	2	21	11	16	11	33	6			49	10	52	2	56								
3	Th	Blaise	7	38	12	14	6	4	50	8	1	Aftern.	5	24	●	2	38	2	55	11	49	—	—	11			6	53	11	3	2	14							
4	F	Twilight ends 6h. 49m.	7	37	12	14	12	4	52	8	14	1	18	6	37	2	3	11	3	27	0	5	0	20			16	6	55	11	16	3	38						
5	S	Agatha "Vict. Cross" Instit., 1856	7	35	12	14	17	4	54	8	26	1	59	7	48	3	3	42	3	56	0	34	0	48	21	6	55	11	29	4	5								
6	S	5th S. aft. EPIPH.	7	33	12	14	21	4	56	8	37	2	40	9	1	4	4	10	4	25	1	3	1	18	26	6	52	11	43	4	35								
7	M	Sun rises at Dublin 7h. 40m.	7	32	12	14	25	4	58	8	47	3	22	10	15	5	4	40	4	55	1	33	1	48	Venus.	{	1	4	42		9	5		1	28				
8	Tu	Sun sets at Dublin 4h. 53m.	7	30	12	14	28	5	0	8	59	4	6	11	33	6	5	10	5	26	2	4	2	21			6	42	9	3	1	24							
9	W	Roman Republic established, 1849	7	28	12	14	30	5	2	9	14	4	53	Morn.	7	5	43	6	0	2	38	2	56	16			4	43	9	2	1	21							
10	Th	Queen Victoria married, 1840	7	26	12	14	31	5	3	9	33	5	45	0	53	D	6	18	6	38	3	16	3	38			21	4	44	9	3	1	22						
11	F	Sun rises at Edinburgh 7h. 38m.	7	25	12	14	32	5	5	10	2	6	42	2	17	9	7	0	7	24	4	2	4	31	Mars.	{	1	9	15		3	18	A	9	21				
12	S	Sun sets at Edinburgh 4h. 54m.	7	23	12	14	31	5	7	10	42	7	44	3	39	10	7	53	8	29	5	7	5	50			6	9	2	3	12	9	23						
13	S	6th S. aft. EPIPH.	7	21	12	14	30	5	9	11	42	8	49	4	51	11	9	12	10	1	6	39	7	31			11	8	48	3	5	9	23						
14	M	St. Valentine	7	19	12	14	28	5	11	Aftern.	9	53	5	47	12	10	53	11	40	8	18	8	59	16			8	33	2	59	9	25							
15	Tu	Day breaks 5h. 23m.	7	17	12	14	25	5	12	2	31	10	54	6	26	13	—	0	21	9	34	10	3	Jupiter.	{	1	11	49		7	54		4	3					
16	W	Twilight ends 7h. 8m.	7	15	12	14	22	5	14	4	5	11	51	6	54	14	0	56	1	25	10	29	10			53	6	11	29	7	35	3	45						
17	Th	Luther died, 1546.	7	13	12	14	18	5	16	5	38	Morn.	7	14	○	1	51	2	15	11	16	11	38			11	11	9	7	15	3	35							
18	F	Sun rises at Dublin 7h. 17m.	7	11	12	14	13	5	18	7	7	0	44	7	29	16	2	38	3	0	11	59	—			—	16	10	50	6	56	3	6						
19	S	Sun sets at Dublin 5h. 15m.	7	9	12	14	7	5	20	8	32	1	34	7	42	17	3	21	3	42	0	20	0	39	21	10	32	6	38	2	47								
20	S	SEPTUAGESIMA	7	7	12	14	1	5	22	9	54	2	22	7	56	18	4	1	4	20	0	58	1	27	Saturn.	{	1	4	12	A	11	58		7	49				
21	M	(Jos. Hume died, 1855)	7	5	12	13	54	5	24	11	17	3	9	8	9	19	4	39	4	58	1	36	1	53			6	3	50	11	37	7	28						
22	Th	Sun rises at Edinburgh 7h. 13m.	7	3	12	13	47	5	25	Morn.	3	57	8	26	20	5	15	5	33	2	11	2	29	11			3	29	11	16	7	47							
23	W	Sun sets at Edinburgh 5h. 18m.	7	1	12	13	39	5	27	0	38	4	46	8	46	21	5	51	6	9	2	47	3	6			16	3	7	10	55	6	7						
24	Th	Day breaks 5h. 6m.	6	59	12	13	30	5	29	1	54	5	36	9	13	⊕	6	28	6	49	3	27	3	48	21	2	45	10	34	6	27								
25	F	St. Matthias	6	57	12	13	21	5	31	3	4	6	28	9	49	23	7	10	7	36	4	14	4	47	26	2	24	10	13	6	6								
26	S	Twilight ends 7h. 25m.	6	55	12	13	11	5	32	4	4	7	20	10	36	24	8	9	8	51	5	29	6	17	Uranus.	{	1	11	11	M	7	4		3	0				
27	S	SEXAGESIMA S.	6	53	12	13	0	5	34	4	50	8	11	11	36	25	9	39	10	24	7	2	7	48			6	10	51	6	44	2	41						
28	M	Cambridge Term divides	6	51	12	12	50	5	36	5	23	9	1	Aftern.	26	11	10	11	55	8	33	9	9	16			10	12	6	5	2	2							
			21	9	52																				21	9	52	5	45	1	42								
			26	9	33																				26	9	33	5	26	1	23								

INDIA AND CHINA.—The only authentic Pictures and Sketches appear in the ILLUSTRATED LONDON NEWS.





"HOPE." PAINTED BY A. J. WOOLMER.—FROM "THE ILLUSTRATED LONDON NEWS."



# THE ILLUSTRATED LONDON ALMANACK FOR 1859.

## ACTS OF PARLIAMENT.—(Continued from page 11.)

83. An Act to Make Provision for the Better Government and Discipline of the Universities of Scotland, and Improving and Regulating the Course of Study Therein, and for the Union of the Two Universities and Colleges of Aberdeen. August 2, 1858.
84. An Act for Enabling the Commissioners of Public Works in Ireland to Acquire Certain Lands and Houses for the Site of a New Court or Courts, and other Offices and Buildings, required for the Public Service in Extension of the Four Courts in Dublin, and for Other Purposes. August 2, 1858.
85. An Act to Continue the Act to Enable Her Majesty to Accept the Services of the Militia out of the United Kingdom. August 2, 1858.
86. An Act Further to Continue an Act to Authorise the Embodiment of the Militia. August 2, 1858.
87. An Act to Continue and Amend the Corrupt Practices Prevention Act, 1854. August 2, 1858.
88. An Act to Amend the 14 and 15 Vic., c. 57, An Act to Consolidate and Amend the Laws Relating to Civil Bills and the Courts of Quarter Sessions in Ireland, and to Transfer to the Assistant Barristers Certain Jurisdiction as to Insolvent Debtors. August 2, 1858.
89. An Act to Amend an Act of the last Session for the Regulation of the Care and Treatment of Lunatics, and for the Provision, Maintenance, and Regulation of Lunatic Asylums in Scotland. August 2, 1858.
90. An Act to Regulate the Qualifications of Practitioners in Medicine and Surgery. August 2, 1858.
91. An Act to Enable Joint-Stock Banking Companies to be Formed on the Principle of Limited Liability. August 2, 1858.
92. An Act to Provide for the Conveyance of County Property to the Clerk of the Peace of the County. August 2, 1858.
93. An Act to Enable Persons to Establish Legitimacy and the Validity of Marriages, and the Right to be Deemed Natural-born Subjects. August 2, 1858.
94. An Act to Amend the Copyhold Acts. August 2, 1858.
95. An Act to Amend the 20 and 21 Vic., c. 77, The Probates and Letters of Administration Act. August 2, 1858.
96. An Act to Amend the West Indian Enumbered Estates Act, 1854. August 2, 1858.
97. An Act for Vesting in the Privy Council Certain Powers for the Protection of the Public Health. August 2, 1858.
98. An Act to Amend the Public Health Act, 1848, and to make Further Provision for the Local Government of Towns and Populous Districts. August 2, 1858.
99. An Act to Provide for the Government of British Columbia. August 2, 1858.
100. An Act to Regulate the Office of Clerk of the Petty Sessions in Ireland. August 2, 1858.
101. An Act to Amend the Act the 18 and 19 Vic., c. 63, Relating to Friendly Societies. August 2, 1858.
102. An Act to Indemnify Certain Persons who have Formed a Voluntary Association for the Disposal of Works of Utility and Ornament, by Chance or Otherwise, as Prizes. August 2, 1858.
103. An Act to Promote and Regulate Reformatory Schools for Juvenile Offenders in Ireland. August 2, 1858.
104. An Act to Alter and Amend the Metropolis Local Management Act (1855), and to Extend the Powers of the Metropolitan Board of Works for the Purification of the Thames and the Main Drainage of the Metropolis. August 2, 1858.
105. An Act to Amend the 13 and 14 Vic., c. 20, An Act to Amend the Laws Concerning Judgments in Ireland. August 2, 1858.
106. An Act for the Better Government of India. August 2, 1858.
107. An Act to Apply a Sum out of the Consolidated Fund and the Surplus of Ways and Means to the Service of the Year 1858, and to appropriate the Supplies granted in this Session of Parliament. August 2, 1858.
108. An Act to Amend the 20 and 21 Vic., c. 85, Relating to Divorce and Matrimonial Causes. August 2, 1858.
109. An Act to Declare and Define the Respective Rights of her Majesty and the Prince of Wales, as Duke of Cornwall, to the Mines and Minerals in or under Land lying below High-water Mark within and adjacent to the County of Cornwall, and for other Purposes. August 2, 1858.
110. An Act to Extend the 24 Geo. III., c. 26, An Act for Issuing Writs during any Recess of the House of Commons, whether by Prorogation or Adjournment. August 2, 1858.
- There are 150 local and personal Acts; ten private Acts printed, and one unprinted.

**LONDON HOSPITALS.**—Every thinking person, upon running over a list of our hospitals, will be surprised at the large amount of Christian benevolence which exists in this metropolis. No other country in the world can boast of doing by voluntary contributions what is done in England for the poor and needy. The list of hospitals in London, as given below, is exclusive of many devoted to, especial classes of diseases, such as diseases of the ear, eye, &c.; for instance, the *Royal Westminster Ophthalmic Hospital*, Charing-cross, founded solely for the relief of indigent persons afflicted with diseases of the eye. From the year 1817 to the 1st of January, 1858, 122,754 persons have availed themselves of the benefit of this charity: of these 2558 have been restored to sight by operations for cataract and the formation of an artificial pupil; the appearance of 10,500 persons have been altogether improved by the operation for the removal of squinting. 6077 persons have been admitted to its benefits during the past year, of whom 157 were in-patients. This charity shows only a very small portion of the immense amount of good effected in the cause of the poor of this vast metropolis by the members of the medical profession. *St. Bartholomew's*, West Smithfield, contains 530 beds, and affords relief yearly to 70,000 sufferers. *St. Thomas's*, St. Thomas's-street, Borough, contains 485 beds, and relieves 50,000 patients annually. *Guy's*, St. Thomas's-street, Borough, makes up 530 beds, and relieves 70,000 patients annually. *St. George's*, Hyde-park-corner, makes up 317 beds. *Middlesex*, Charles-street, Cavendish-square.—Here is a special ward, founded by Samuel Whitbread, where persons afflicted with cancer can remain all their lives. *London*, Whitechapel-road, for seamen, labourers, &c., from the Docks. *Westminster*, James-street, near the Abbey. 220 beds. *Charing-cross*, King William-street, Strand, makes up 150 beds, and relieves 17,000 poor persons annually. *Metropolitan Free*, Gray's-inn-road. 150 beds. *University College*, Gower-street. 150 beds. *King's College*, Lincoln's-inn-fields. 150 beds.

## NEWSPAPER STAMP RETURNS.

A RETURN of the Registered Newspapers in the United Kingdom, and the Number of stamps issued to each for every quarter respectively, from July, 1855, to the end of 1857, has just been published. The compulsory stamp having been abolished, this return supplies only a partial indication of the circulation of each newspaper—as a much larger impression is printed of unstamped than of stamped copies. It will be seen that the ILLUSTRATED LONDON NEWS still holds its ground in spite of all opposition—the return just published showing that the ILLUSTRATED LONDON NEWS had three times more stamps than any other weekly newspaper published in London or in the empire. Nor need the ILLUSTRATED LONDON NEWS shrink from a comparison in this respect with the most largely-circulated of the daily newspapers. Take, for example, the *Times*, which overtops its rivals in so lordly a manner. From the accompanying return it may be readily seen (bearing in mind the fact of the dailies having six issues to one issue of the weeklies) that the average number of stamps used for each impression of the ILLUSTRATED LONDON NEWS in the year 1857 was more than double the number required during the same period for each impression of the *Times*.

During the year 1857 the number of Penny and Threepenny Stamps issued to the ILLUSTRATED LONDON NEWS was One million seven hundred and eleven thousand four hundred and fifty-six.

We annex the following tabular statement of the number of stamps issued during the four quarters of the year 1857 to the principal Weekly and to the Daily Metropolitan Newspapers:—

### METROPOLITAN WEEKLY NEWSPAPERS.

Names of Newspapers.	Quarter to March 31.	Quarter to June 30.	Quarter to Sept. 30.	Quarter to Dec. 31.	Total for 1857.
<b>Illustrated London News</b>	<b>391,086</b>	<b>475,628</b>	<b>460,691</b>	<b>384,051</b>	<b>1,711,456</b>
Bell's Weekly Messenger	118,500	126,000	133,500	123,500	501,500
Bell's Life in London	86,000	92,000	95,000	91,000	364,000
Weekly Times	91,021	74,802	82,689	76,161	324,673
Lloyd's Weekly London	77,000	71,500	72,000	73,000	293,500
Mark-lane Express	78,000	60,000	72,000	78,000	286,000
Weekly Dispatch	49,550	74,654	55,007	74,142	253,346
Field	57,500	59,000	58,500	65,500	240,500
Guardian	44,000	43,000	45,500	45,500	178,000
Observer	34,000	33,000	31,000	31,000	129,000
Examiner	31,650	20,550	30,525	32,800	125,525
Watchman	20,000	25,000	30,000	30,000	105,000
Nonconformist	23,500	24,000	22,525	21,925	92,050
Illustrated Times	21,150	19,500	24,310	23,500	88,460
Economist	19,000	19,000	19,500	17,500	75,000
Press	18,000	18,000	15,000	14,000	65,000
Era	17,000	15,906	15,850	16,000	64,756
Sunday Times	16,500	16,500	13,500	14,379	60,879
Saturday Review	12,000	11,000	15,500	21,000	59,500
Spectator	15,000	15,000	15,500	13,500	59,000
John Bull and Britannia	14,000	15,000	13,675	13,500	56,175
United Service Gazette	10,986	11,500	11,500	12,473	46,459
Wesleyan Times	10,000	10,000	8,000	8,000	36,000
English Churchman	9,000	8,550	9,100	8,450	35,100
Railway Times	10,000	6,000	10,000	7,000	33,000
Leader	8,500	7,200	7,750	7,100	30,550
Christian Times	8,000	7,500	7,000	7,500	30,000
British Banner	9,000	6,000	4,500	4,500	24,000
Union	5,200	6,000	6,000	5,500	22,700
Atlas	3,000	4,500	3,000	3,000	13,500

### METROPOLITAN DAILY NEWSPAPERS.

The Times	888,834	875,810	931,013	943,134	3,638,791
Express	144,458	144,165	128,773	149,505	566,901
Morning Post	105,000	100,000	120,000	105,000	430,000
Morning Herald	81,500	80,000	81,000	67,000	309,500
Globe	60,000	50,000	60,000	70,000	240,000
Daily News	59,895	54,902	59,766	54,903	229,466
Sun	54,000	51,000	55,000	52,000	212,000
Evening Star	40,000	35,000	42,000	49,000	166,000
Standard	38,000	37,000	27,000	25,000	127,000
Evening Herald	—	1,500	41,000	50,000	92,500
Morning Advertiser	10,000	20,000	30,000	30,000	90,000
Morning Chronicle	27,000	20,000	20,000	16,000	83,000
Morning News	2,000	6,000	—	3,000	11,000

## THE ILLUSTRATED LONDON NEWS

publishes, besides the above number of Stamped Papers, three times as many unstamped Copies, making an average of upwards of

**140,000 Copies per Week.**

The Proprietor and Conductors of the ILLUSTRATED LONDON NEWS believe that one of the causes of this great success is that the Journal has always advocated NATIONAL INTERESTS, without fear or flattery of party or class; and that it receives a ready welcome in every home, for the reason that all objectionable and immoral subjects are rigidly excluded from its columns. It is also popular for the mass of information embodied in its pages, for the beauty of its Engravings, and for the splendid Coloured Pictures which it occasionally publishes.

The public may rest assured that increased exertions shall be used further to improve the Illustrations, and to render this Journal a Pleasing Instructor in Politics, Literature, Science, and the Fine Arts.

198, Strand, Sept. 18, 1858.



## FEBRUARY.

The Sun passes from the sign of Aquarius to that of Pisces at 3h. 27m. A.M. of the 19th. It is situated south of the Equator, and moving northward. A very small eclipse of the Sun takes place on February 2nd, which is only visible in a small portion of the Southern Ocean. Only about one-hundredth part of the solar diameter is eclipsed, and the eclipse only remains visible for half an hour.

The Moon is near Mars on the morning of the 7th, near Uranus at noon of the 11th, near Jupiter on the morning of the 12th, near Saturn at midnight of the 15th, and near Venus at noon of the 28th. A total eclipse of the Moon occurs on February 17, which is invisible at Greenwich. It is at its shortest distance from the Earth at 2 A.M. of the 16th, and at its greatest distance at 5 A.M. of the 28th.

New Moon occurs at	4 minutes past	1	on the morning of the 3rd.
First Quarter	40	7	on the evening of the 10th.
Full Moon	42	10	on the morning of the 17th.
Last Quarter	21	2	on the afternoon of the 24th.

MERCURY is in the constellation of Sagittarius at the beginning of the month, in that of Capricornus at the middle, and in that of Aquarius at the end of the month. It continues, from its small altitude above the horizon and its proximity to the Sun, to be unfavourably situated for observation. It is at its greatest distance from the Sun on January 8th.

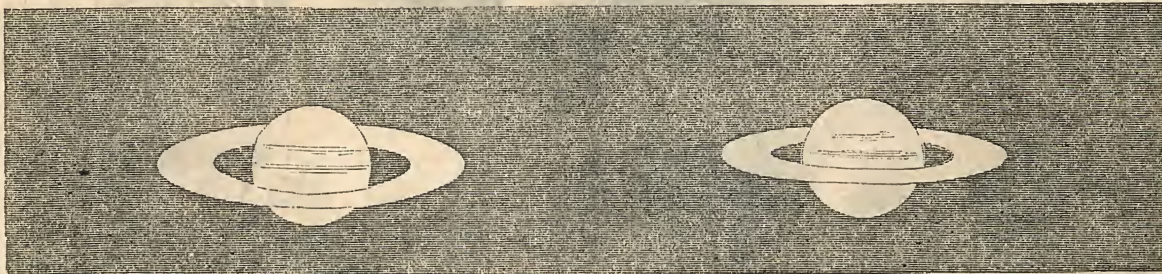
VENUS remains in the constellation of Sagittarius throughout the month. From its low altitude it is unfavourably situated for observation; but is otherwise bright, and its most interesting phases occur about this time. It is about half full at the latter part of the month. At 4h. 45m. A.M. of the 22nd it is very close to the star Delta Sagittarii. It is at its greatest elongation from the Sun at noon of the 23rd, being then 46° 43' west. On the morning of the 28th it is about six degrees north of the Moon.

MARS is in the constellation of Cetus at the beginning of the month, and in that of Pisces at the middle and end of the month. The apparent diameter of its disc is less than five seconds of arc. It will be seen in the evening in the westerly portion of the sky. It is about four degrees south of the Moon on the morning of the 7th.

JUPITER is stationary on the evening of the 5th, and five degrees and a half south of the Moon on the morning of the 12th. It continues to be the most lustrous of the celestial objects in the southern and western sky throughout this month. It remains in the constellation of Taurus during the whole of February.

SATURN is now most favourably situated for observation, being at its shortest distance from the Earth. It is a degree and a quarter south of the Moon at forty-nine minutes past midnight of the 15th. It is in the constellation of Cancer, and remains visible throughout the whole of the night.

## RINGS AND BALL OF SATURN, 1859.



January, 1859.

November, 1859.

URANUS is in the constellation of Taurus throughout the month. It is five degrees and a half south of the Moon at noon of the 11th, is stationary on the afternoon of the 6th, and in quadrature with the Sun on the afternoon of the 18th.

ECLIPSES OF JUPITER'S SATELLITES.—Feb. 3rd, 9h. 42m. afternoon, reappearance of first satellite; Feb. 4th, 1h. 25m. morning, disappearance of third satellite; Feb. 10th, 11h. 37m. afternoon, reappearance of first satellite; Feb. 12th, 6h. 6m. afternoon, reappearance of first satellite; Feb. 18th, 1h. 33m. morning, reappearance of first satellite; Feb. 18th, 7h. 29m. afternoon, reappearance of second satellite; Feb. 19th, 8h. 2m. afternoon, reappearance of first satellite; Feb. 25th, 7h. 35m. afternoon, disappearance of second satellite; Feb. 25th, 10h. 4m. P.M., reappearance of second satellite; Feb. 26th, 9h. 58m. afternoon, reappearance of first satellite.

The planet SATURN is now one of the brightest objects in the sky, arriving in opposition at the beginning of the month, and being then at its shortest distance. As a telescopic object it is, however, becoming less interesting at each successive opposition, the Earth now being situated at a smaller altitude above the plane of the ring than of late years, and the surface of the rings being consequently less favourably seen. Its phases at its appearance during the spring and autumnal months of 1859 is given in the above diagram. The divisions on the ring may, however, still be favourably seen, and the satellites of the planet will now be more easily recognised than when the ring was most open, though there is only one which is perceptible in smaller telescopes, and it is not brighter than a star of the ninth magnitude.

Favourable times for observing the celestial bodies are very equally distributed over the several months of the year, and the air is equally calm (according to our experience) in the warm sunny nights and the cold winter ones, and equally the reverse. In this climate we have generally found the greatest steadiness and best definition with southerly and south-westerly winds, when the stars appear to be almost quiescent in the field of view of a powerful telescope, and the atmosphere is most disturbed and the greatest amount of scintillation takes place during easterly gales and frosty weather. The former condition of the atmosphere is very common during the autumnal months, and the temperature being favourable makes this the most pleasant time of the year for carrying on out-of-door observations, as long as the twilight does not impede our prospect of faint objects. But a clear night in winter is far superior to any other, and it is on such rare occasions that the stars appear really fixed, and shine with such purity and steadiness of light that the definition seems unsurpassable, and the members of the sidereal universe appear as minute diamond points on such occasions. But these latter occasions are indeed rare, and, with the experience of fifty years before him, Sir William Herschel reckoned that perfect purity of atmosphere does not occur in above one hundred hours in a year. That great observer made the following remarks on the working of reflecting telescopes in different states of the atmosphere; but they apply equally to refracting telescopes, and may be of service to amateur astronomers:—

“No delicate observation can be made, that is to say, no observation requiring a high magnifying power will succeed, if we attempt to make it through a window or the narrow opening of a roof.

“If the wind is strong, the telescopic images are in general not very distinct, from which we may infer that the wind produces a bad effect in mixing the different atmospheric strata of different temperatures.

“Aurora Borealis sometimes produce an injurious effect to astronomical observations: they appear to render the object waving and indefinite. But they do not generally produce any considerable effect. Arago remarks that if the aurora are the cause or effect of great changes in the temperature in the different regions of the atmosphere, their influence may be assimilated to that of the wind.

“A star does not appear to be well defined when the rays which come to us have passed at a small elevation above the roof of any edifice. In this case there is an atmospheric movement coming from a mixture of the strata which have been unequally warmed.

“When the atmosphere is dry (as is generally the case during easterly winds) the telescopes perform badly.

“On the contrary, when the atmosphere is saturated with moisture the images of the stars have a remarkably good definition. This excellent definition also exists in a misty sky, but particularly during a fog. The mistiness preserves all the good definition of the edges of celestial objects until they finally disappear by the fog becoming too thick.

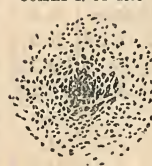
“Sometimes it happens that at a time apparently very favourable the stars appear very badly defined. This, as Herschel remarks, may occur from the presence of a ‘high and dry’ atmosphere, commingled with a low and moist one, or may depend on the mixture of strata of different temperatures.

“When a sudden frost succeeds mild weather, or a sudden thaw succeeds a long frost, telescopes perform very indifferently. Good results need not be expected at the moment when a telescope is transported from a warm room into the cold air.

“If the mirror of a reflecting telescope is not of the same temperature as the surrounding air the vision will always be imperfect, and on such occasions strong magnifying powers cannot be advantageously made use of.”

COMET I. OF 1858.—The comet discovered at Berlin on the 11th of January, 1858, appears to have been detected seven days earlier by Mr. Tuttle in North America. The supposition of its identity with the first comet of 1785 has not been confirmed by further observation; but its resemblance to the second comet of 1790 is so striking that it may be concluded to be a reappearance of that body.

## COMET I. OF 1858.



ON FEB. 1.

The comet was favourably situated for observation, and could be seen by the help of a moderately powerful telescope. It altered but little in appearance since the beginning of February; but became slightly brighter and larger, although the nucleus was not so well defined as at first. The comet of 1790 is described by Messier as small and faint, and remained visible for only thirteen days. The nucleus was not always visible. On Feb. 13, at six p.m., the comet was situated at R.A. 2h. 22m.; N.P.D., 90 deg. 26m. On Feb. 16, at R.A. 2h. 32m.; N.P.D., 93 deg. 4 min. On Feb. 19, at 2h. 41m. of R.A., and at 95 deg. 35 min. of N.P.D.; and on Feb. 21, at 2h. 35m. of Right Ascension, and 97 deg. 12 min. of North Polar Distance.

## COMET I. OF 1858.



ON FEBRUARY 9.





Day of Month.	Day of Week	ANNIVERSARIES, FESTIVALS, REMARKABLE EVENTS.	SUN.			MOON.			HIGH WATER AT				PLANETS.					
			Rises at London.			Sets at London.			LONDON BRIDGE.		LIVERPOOL DOCK.		Rise.		South.		Set.	
			H. M.	H. M.	S.	H. M.	H. M.	A.	Morn.	Aftern.	Morn.	Aftern.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
1	Tu	<i>St. David</i>	6 49	12 12	38	5 38	5 49	9 48	1 56	27	11 10	0 31	9 35	9 56				
2	W	<i>St. Chad</i>	6 47	12 12	26	5 40	6 7	10 33	3 10	28	0 57	1 18	10 16	10 36				
3	Th	Day breaks 4h. 52m.	6 44	12 12	14	5 41	6 22	11 16	4 22	29	1 38	1 58	10 53	11 8				
4	F	Twilight ends 7h. 36m.	6 42	12 12	15	43	6 34	11 58	5 36	●	2 15	2 30	11 23	11 38				
5	S	Covent-garden Theatre burnt down, 1856	6 40	12 11	47	5 45	6 45	Aftern.	6 50	1	2 45	3 0	11 52	—				
6	S	<b>QUIN. SHROVES.</b>	6 38	12 11	33	5 46	6 57	1 21	8 5	2	3 14	3 27	0 5	0 20				
7	M	<i>Perpetua</i>	6 35	12 11	19	5 48	7 8	2 5	9 21	3	3 42	3 57	0 35	0 50				
8	Tu	<b>SHROVE TUESD.</b>	6 33	12 11	45	5 50	7 22	2 51	10 41	4	4 12	4 28	1 6	1 22				
9	W	<b>ASH WEDNESD.</b>	6 31	12 10	49	5 52	7 40	3 42	Morn.	5	4 44	4 59	1 37	1 54				
10	Th	Sun rises at Dublin 6h. 30m.	6 29	12 10	34	5 53	8 4	4 36	0 4	6	5 16	5 34	2 12	2 31				
11	F	Sun sets at Dublin 5h. 55m.	6 27	12 10	18	5 55	8 40	5 36	1 25	7	5 53	6 15	2 53	3 16				
12	S	<i>St. Gregory</i>	6 24	12 10	25	5 57	9 31	6 37	2 39	☾	6 38	7 5	3 43	4 14				
13	S	<b>QUAD. 1st S. in L.</b>	6 22	12 9	46	5 59	10 40	7 40	3 40	9	7 36	8 15	4 53	5 41				
14	M	Abolition of Sound dues, 1857	6 20	12 9	29	6 0	Aftern.	8 40	4 24	10	9 3	9 55	6 33	7 26				
15	Tu	Day breaks 4h. 24m.	6 17	12 9	12	6 2	1 34	9 37	4 54	11	10 48	11 36	8 14	8 52				
16	Th	Twilight ends 7h. 58m.	6 15	12 8	54	6 4	3 5	10 30	5 17	12	—	0 14	9 22	9 49				
17	W	<i>St. Patrick</i>	6 13	12 8	37	6 5	4 34	11 20	5 34	13	0 44	1 11	10 13	10 35				
18	F	Princess Louisa born, 1843	6 11	12 8	19	6 7	6 0	Morn.	5 47	○	1 35	1 57	10 56	11 16				
19	S	Derham died, 1688	6 8	12 8	16	9 7	7 24	0 9	6 1	15	2 18	2 38	11 33	11 52				
20	S	<b>2ND S. in LENT.</b>	6 6	12 7	43	6 10	8 49	0 57	6 15	16	2 55	3 14	—	0 11				
21	M	Parliament dissolved, 1857	6 4	12 7	25	6 12	10 11	1 45	6 29	17	3 33	3 51	0 29	0 47				
22	Tu	Sun sets at Edinburgh 6h. 17m.	6 2	12 7	7	6 14	11 32	2 35	6 48	18	4 9	4 27	1 5	1 22				
23	W	Duke of Parma assassinated, 1854	6 0	12 6	48	6 16	Morn.	3 26	7 13	19	4 44	5 1	1 39	1 57				
24	Th	Overseers appointed	5 57	12 6	30	6 17	0 49	4 18	7 45	20	5 19	5 37	2 15	2 35				
25	F	<i>Annunc. Lady-d.</i>	5 55	12 6	12	6 19	1 52	5 11	8 28	21	5 57	6 17	2 55	3 17				
26	S	Day breaks 3h. 52m.	5 52	12 5	53	6 21	2 44	6 3	9 25	22	6 39	7 2	3 40	4 10				
27	S	<b>3RD S. in LENT.</b>	5 50	12 5	35	6 22	3 23	6 54	10 30	23	7 32	8 10	4 48	5 32				
28	M	Twilight ends 8h. 22m.	5 48	12 5	16	6 24	3 52	7 42	11 41	24	8 54	9 43	6 21	7 5				
29	Tu	Sun rises at Dublin 6h. 42m.	5 46	12 4	58	6 25	4 12	8 28	Aftern.	25	10 27	11 11	7 49	8 28				
30	W	Sun sets at Dublin 6h. 28m.	5 43	12 4	39	6 27	4 18	9 12	2 7	26	11 50	—	8 58	9 21				
31	Th	Interest on India Bonds due	5 41	12 4	21	6 29	4 41	9 54	3 20	27	0 20	0 43	9 40	9 58				





"DISAPPOINTMENT." PAINTED BY A. J. WOOLMER.—FROM "THE ILLUSTRATED LONDON NEWS."



## BRITISH BIRDS OF THE SEASON.

## MARCH AND APRIL.

FEBRUARY bequeaths to the month of Mars a legacy of rains and floods and cloudy skies; but the rough winds from the north-east will soon drive the clouds to the far south, and dry up the humidity with which the globe is supersaturated. So at least hopes the farmer as he surveys his fields, anxious to commence his labours and yoke his team to the plough.

Vegetation is advancing. Bushes are bursting into leaf; the sprays of the sloe are white with blossoms, which come before the foliage; the woods, viewed at a distance, have a purplish-brown tinge, owing to the colour of the sealy investment of the buds, which are rapidly swelling. Many hardy vernal flowers bespangle the sheltered bank and warm nooks in the coppice. Wild violets "ope their eyes," the daisy "glents forth," and the yellow primrose coyly woos the sun. Soon shall "the almond-tree flourish;" and ere the month be past the garden shall present us "daffodils, that come before the swallow dares, and take the winds of March with beauty." So at least says Shakspere, but his March was twelve days in advance of ours. Still, "Flora peers in April's front." Gone or going are all our winter birds of passage. Gone or going is the redwing, with its relative the fieldfare, seeking the birch-glens of Norway and the woods of Northern Germany. Gone are our flocks of waterfowl: they have obeyed the voice which called them to their arctic home:—

They seek the plashy brink  
Of weedy lake, or marge of river wide;  
Or where the rocking billows rise and sink  
On the chafed ocean side.

There shall they find a summer home and rest,  
Reeds shall bend  
Soon o'er their sheltered nest.—BRYANT.

But they have left some companions behind—birds indigenous on our island, and to whom they paid a winter visit. The wild mallard and his mate have paired, and are preparing their nest in the reed-grown swamp; so, too, is the teal, in the rushy hedge along the borders of the marsh, or among the bogs of the upland moors.

Let us not forget the things of the earth, for a change has taken place among those that run and creep, as well as among those that pursue their course through the fields of air.

The wanderer through the woods at eve will again mark the padding hedgehog as he hurries across his path. It has emerged from its hybernaculum—a nest of leaves in some obscure recess, under the gnarled roots of a tree, beneath piles of logs or old haystacks, midst dense brambles, and various other localities. Coiled up in its nest of leaves and intertwined moss and herbage, it quietly slept during the winter till the time of its awakening came. Lured by the midday rays, the sly little dormouse creeps forth from its nest, and wanders about the twigs of the hazel coppice; it is a sound winter sleeper. The squirrel is all activity; but the squirrel only partially hibernates; he visits his stores of food even during midwinter, falling to sleep at intervals. Late will it be in March—not perhaps until April has fairly commenced—before the bat wheels in sharp zigzags around the old church spire, or the great scyemoors which overshadow the thatched barn. The bat makes no nest, but merely suspends itself by the hinder claws in old churches, barns, caverns, and such like places of shelter.

The ditches and pools resound with the croaking of frogs; the water-newts are swimming about in ponds and drainage-courses; the snake and the lizard timidly crawl forth from their concealments, and seem scarcely as yet restored to animation. It is only when the sun shines with warm beams that these reptiles venture forth. There is a buzz of insects along the lanes and by the borders of the woods, and the beautiful sulphur butterfly flits along on winnowing wings.

Quadrupeds, reptiles, insects, and snails hibernated, but not birds. It was once, indeed, supposed that swallows plunged into lakes and morasses, and that there, in a submerged state, amidst roots and stems of reeds, or even sunk into the oozy beds, they fell into a quiet trance till spring revived them. It is strange that writers of great note—even Cuvier and Humboldt—should have countenanced this theory, which, we need not say, is now universally rejected as utterly destitute of foundation.

That late-bred birds—swallows, martins, and other migratory species—too weak to accompany their companions in their flight, may sometimes remain with us during the winter, and, in sheltered concealment, even survive the rigours of the season, may perhaps be conceded. But then the birds must take food; and in such spots insects are still on the alert during a transient gleam of sunshine; and, though they may be benumbed and somnolent from the effects of cold, they are not in a state of hibernation.

Unconfirmed as is the year, trembling between winter and full-blossomed spring, and before the swallow comes on untiring wing—before the voice of the cuckoo and the "peep" of the wryneck are heard—before the nightingale and the blackcap, with a host of warblers in their train, dare to venture into our land—there is a stir among such hardy birds as have defied our winter skies and winter cold. Nor is the voice of music unheard. Perched on some leafless spray, the little wren pours forth his sweetly clear and high-toned notes; the hedge-sparrow utters his short, low warble; and at morn and eve, perched on the topmost twig of the tallest tree in the grove, the thrush carols loud and bold; nor is the dulcet pipe of the blackbird, hidden in the thicket, unheard. All alert is the house-sparrow—familiar bird!—busy on the top of house or barn, stable or stack; bird of the city and the town, of the village and the farm. Incessant is his chirp, and many are the conflicts with noise and tumult in which rival parties engage—amusing sparrow fights, which end without bloodshed. The lark, too,

Invisible in flecked sky  
The lark sends down his minstrelsy.

The flocks of the larks have broken up; some have departed to the northern parts of the Continent; and our home birds have mated. Playful is the lark with his mate; buoyant and undulating is his flight as he accompanies her on the wing; lightly around her he disports; then, as if inspired by some sudden impulse, he makes an abrupt gyration, and he mounts aloft on shivering pinions, singing his impassioned love song.

Teach me half the gladness  
That thy brain must know,  
Such harmonious madness  
From my lips would flow,  
The world would listen then, as I am listening now.

Such is the concluding stanza of Shelley's exquisite "Ode to the Skylark," a gem among the many which have been addressed to this bird of poetry. Soon under the shelter of some clod, or in some slight depression, amidst the green blades of the rising wheat, will the skylark make his nest; but

already has many a bird built its "procreant cradle," already has the work of incubation commenced. First, the thrush—bold songster of the grove, he fears not the blustering winds of March!—constructs his plastered nest in some dense bower, some ample bush, not unfrequently close to the abode of man. Scarcely behind him is the blackbird, and even more closely to the threshold will he venture to place his nest: we have seen it in the covert of a laurel-hedge, in the playground of a lady's boarding-school, and close to the schoolroom window; we have seen it in the centre of a large Portugal laurel on the lawn, adjacent to the principal pathway, and within a few yards of the door.

To these we may add the missel thrush. More reclusive in its habits, more woodland, this bird fixes its nest in the fork of a branch, especially preferring old mossgrown trees, often in the orchard, often in the extensive kitchen garden, or in the coppice.

Next comes the hedge-sparrow. Who does not know its nest and its bright blue eggs, and what schoolboy knows not where to look for it? The tiny wren, too, is at work; and so is the greater as well as the blue titmouse.

The magpies have held their convocation, and arranged their business to the satisfaction of all parties; and the pairs are now engaged in renovating their old domicile.

What a bustle, what a commotion, there is in the rookery! The sable wanderers have gathered together, and, with energy and clamour, are busy among the topmost branches of the lofty trees. Some are repairing their old nests; some are constructing new ones; some are bringing sticks and twigs to patch up and strengthen a cradle which has already served for several generations; some are contending for a nest to which two parties lay claim (and no doubt, as is too often the case, the law of might will prove the law of right); others, audacious freebooters, are absolutely robbing their neighbours, cunningly despoiling their nests for the sake of furnishing their own. Not always, however, do the marauders go unpunished. Two or three pairs, fired with indignation at the injury received, combine to attack the nefarious couple, tear their nest to pieces, and drive them from the community. Turmoil, squabble, and misrule prevail. Loud is the incessant cawing; great the agitation; and the shifting about, and the going and coming, are without intermission. Gradually, however, litigation ceases, the squabbles subside, and tranquillity prevails. The female is sitting upon her eggs, and her mate is assiduous in supplying her with food.

Turn we to our Plate. It presents us with Mr. Wolf's graphic Sketch of a Heronry in the secluded part of a pine forest.

In former times heronries were abundant in our island. Then the axe had not levelled our forests, nor were our meres and swamps drained. The land could scarcely be said to be under culture. There was no winter pasturage; and the great landed proprietor killed his cattle in summer or autumn, and salted the flesh, lean and coarse, for the consumption of his household during winter. Then, too, the gun was unknown. The crossbow and bolt constituted the fowlingpiece, and a clumsy machine it was. But falconry was in vogue; and every gentleman, according to his rank, carried his hooded falcon, or his short-winged hawk, upon his wrist. Woe to the serf or humble peasant who killed a wild hawk or destroyed its eggs; woe also to him who molested a heron, or disturbed a heronry! The cruel Forest Laws were in full force; and easier was it to obtain pardon for homicide than for the slaughter of a deer or for injury done to falcon, hawk, or heron. The times have changed; the serf has become a freeman; the forests have disappeared; the marshes have been drained; the plough is driven over broad acres once the oozy, alluvial bed of the deep swamp; and the land is inclosed. Such alterations have driven from our island many birds—the crane, the stork, the spoonbill, and the bustard—which once were common. The heron, however, still maintains his ground—but not without protection.

There are several fine heronries in England and Scotland—one of considerable extent along the wooded banks of the Findhorn, in Morayshire; but we cannot enumerate all. One we well know in a clump of giant trees, rising over an extensive range of meadow land, watered by the Holybrook, near Reading. We have watched it for many an hour. If a rookery be amusing and picturesque, far more so is a heronry. Let us describe it. We must premise that the constituent members of a heronry scatter themselves during winter over the country, often at great distances from their citadel, visiting creeks, the mouths of rivers, and open sheets of water. Early in February they wing their way back to their old home, and, once more collected together, commence their labours. High aloft on the topmost branches are their large flat nests, more or less crowded together; and he who would observe the birds must use a telescope. What a scene of activity! There is a hurrying to and fro, a clattering of bills, and a continuous clanking chatter, suspended at intervals, when one or two, spreading their "sail-broad ears," soar in mid-air, and sweep away in a straight line till lost in the distance. During flight the heron bends his long neck into an abrupt sigmoid flexure—the spear-shaped beak seeming to project at once, like a tilting lance in rest, from between the shoulders. The legs are extended backwards.

Buoyant, easy, and graceful is the flight of the heron; and its power of soaring when attacked by the falcon has been ever celebrated. It was regarded as noble game, and its flesh was in high esteem. In March the females have laid their eggs, and are incubating. During the day their mates stand motionless on the adjacent branches, but morning and evening do they set off to their fishing-grounds, and return with a supply to the patient watcher on her nest. There is supposed to exist a sort of animosity between the heron and the rook; and Bewick, upon the authority of Dr. Haysam, gives an account of a battle in which a colony of herons encountered a colony of rooks. All we can say is this—a noble rookery is closely adjacent to the heronry on the Holybrook, and we have seen the herons and rooks cross each other's path in the air; we have seen the rooks pass close to the heronry, and *vice versa*, without the slightest apparent animosity on either side. What, indeed, have they to dispute about?

Looking through our telescope at the heronry, we perceive a woodpecker (the greater spotted *Picus major*) running up the stem of the tall tree crowned by the heron's nest. The decaying pine is the favourite tree of this bird. With its hard, wedge-like bill it works out a deep excavation, often with two openings, and there, on a bed of dry timber-dust, lays its four white eggs. It is an early breeder.

Insensibly has March passed into April—the opening month, the month of soft vernal showers, of gales from the south, of expanding leaves and opening blossoms, of birds' nests in copse and hedgerow, of insects on the wing revived from their winter torpor. Soon will the swallow come, the cuckoo, and the nightingale. April introduces them to May.



# THE ILLUSTRATED LONDON ALMANACK FOR 1859.

## MARCH.

THE SUN is situated south of the Equator and in the sign of Pisces until 3h. 20m. A.M. of March 21st, when it passes into the sign of Aries, and is then north of the Equator. A partial eclipse of the Sun takes place on March 4th, which is invisible at Greenwich.

The Moon is near Mercury on the afternoon of the 4th, near Mars on the morning of the 8th, near Uranus on the evening of the 10th, near Jupiter on the afternoon of the 11th, near Saturn on the morning of the 15th, and again near Mercury on the afternoon of the 30th. It is at its shortest distance from the Earth at 5 A.M. of the 16th, and at its greatest distance at midnight of the 27th.

New Moon occurs at 11 minutes past 7 on the evening of the 4th.
First Quarter " 39 " 4 on the morning of the 12th.
Full Moon " 45 " 9 on the evening of the 18th.
Last Quarter " 27 " 9 on the morning of the 26th.

MERCURY is in the constellation of Aquarius at the beginning of the month, in that of Pisces in the middle, and in that of Aries at the end of the month. Towards the end of the month it is becoming more favourably situated for observation, both on account of its more easterly elongation from the Sun, as likewise on account of its greater altitude above the horizon. It may be seen by the naked eye at the latter end of the month in the north-west horizon, setting there one hour and a half after the Sun. It is situated a little south of the Moon on the afternoon of the 4th, is in superior conjunction with the Sun on the 8th, and is at its shortest distance from the Sun on the 24th.

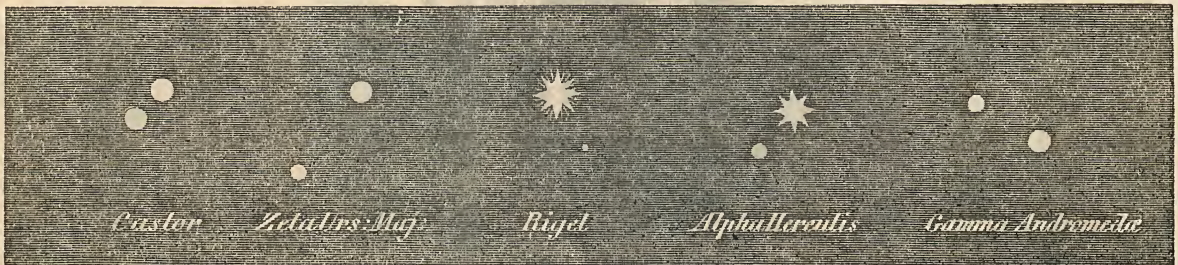
VENUS is in the constellation of Sagittarius at the beginning of the month, in that of Capricornus at the middle, and in that of Aquarius at the end of the month. It is now becoming more favourably situated for observation, but is also less bright, and of smaller dimensions. Throughout the day of the 20th it remains near the star 29 Capricorni, and is close to the Moon on the afternoon of the 30th.

MARS is unfavourably situated for observation, the diameter of its disc now being only four seconds of arc. It is still, however, to be seen in the west and north-west part of the horizon, setting three hours after the Sun, at the middle of the month. It is five degrees south of the Moon on the morning of the 8th. It is in the constellation of Pisces at the beginning, and in that of Aries at the middle and end, of the month.

JUPITER is now the evening star, passing the meridian at six o'clock at the beginning of the month, and is the brightest of the heavenly objects in the western sky during the evenings and nights, and continues to be well situated for telescopic examination. It is situated in the constellation of Taurus throughout the month. On the evening of March 3rd Jupiter is in quadrature with the Sun, and at 4h. 35m. P.M. of the 11th it is five degrees and a half south of the Moon.

SATURN is near the Moon on the morning of the 15th. It is now the most favourably situated of the planets for telescopic examination, remaining visible throughout the whole of the night, and being at a considerable altitude above the horizon. It remains in the constellation of Cancer throughout the whole of the month.

URANUS is five degrees and a half south of the Moon at 6 P.M. of the 10th, and remains in the constellation of Taurus throughout the month.



POSITIONS OF COMPONENTS OF DOUBLE STARS.

ECLIPSES OF JUPITER'S SATELLITES.—March 4th, 8h. 4m. afternoon, reappearance of third satellite; March 4th, 10h. 10m. afternoon, disappearance of second; March 5th, 0h. 40m. morning, reappearance of second; March 5th, 11h. 54m. afternoon, reappearance of first; March 11th, 9h. 29m. afternoon, disappearance of third; March 12th, 0h. 6m. morning, reappearance of third; March 14th, 8h. 19m. afternoon, reappearance of first; March 21st, 10h. 14m. afternoon, reappearance of first; March 22nd, 7h. 9m. afternoon, reappearance of second; March 29th, 9h. 44m. afternoon, reappearance of second.

Various objects of interest come within reach of the observer during the month of March, among the rest several of the most conspicuous and brightest of the double stars. That of Castor is a fine object, consisting of two stars of equal (the third) magnitude, which are beautifully separated with a good telescope. Both stars are of the same colour. The same remark applies to the components of Gamma Virginis, which now souths about midnight, both stars being of the third magnitude. The well-known star of Mizar, or Zeta Ursæ Majoris, which is now in the zenith at midnight, is a less difficult object to separate, the stars being fourteen seconds apart, and are respectively of the third and fourth magnitudes—the larger of a whitish yellow, the smaller of a bluish tint. In the southern heavens we have likewise Rigel, or Beta Orionis. The smaller star is here barely discernible and almost lost in the rays of the larger one. The small star attending Alpha Lyre is still fainter. The colours of the components of Gamma Andromedæ and Alpha Herculis, which are now visible, are very remarkable. The Pole Star is an object always visible; the smaller star is of the tenth magnitude.

The condition of the atmosphere during celestial observations has already been alluded to; but is not so apparent in our latitudes as in the tropical regions. Humboldt, in the third volume of his "Cosmos," has adduced many interesting particulars of such phenomena; and the following notice of them, written by the African traveller Vogel (whose fate now excites such curiosity) to the illustrious and venerable author of that work, quite confirms his experience, and may be entertaining to many. It appears to be altogether a local refraction (if we may use the expression), similar in nature, although far more extraordinary, than we generally see when looking at distant terrestrial objects after rain and during sunshine.

"The phenomenon of the extraordinary motion of stars was well seen at the setting of Venus at the Tayhoo Mountains. As I directed my sight to this star I perceived a remarkable motion of it from right to left sometimes, and the same extraordinary movement up and down. It was at this time about two degrees above the horizon. The motion was nearly equal to a diameter of the Moon in either direction. The twilight at the time was excessively faint. I perceived the same appearance later in the evening, and directed the attention of my fellow-travellers to it, who compared it to the light of a lamp on the mast of a ship, as seen in a stormy sea. The appearance of Sirius, which I saw on one of the mornings of August, was something altogether different. The star, which was then five or six degrees above the horizon, and was visible in bright twilight, appeared to have an irregular motion parallel to the horizon, sometimes passing backwards with three or four jerks, and then going to the right in the same manner. The description which an observer from Trier gave of it on the preceding year, and in which he compared it to a kite with a lantern tied to its tail, immediately occurred to my mind. In September the same phenomenon was perceptible in Regulus. I was sitting on the ground, with my head leaning against a tree, in order to be secure from any illusion, and am certain that the arc which the star described was not less than four or five degrees. On this extraordinary motion of the stars I have come to the following conclusions:—

"The lateral motion of a star is most perceptible when the star is at an elevation of five or six degrees above the horizon, and is seen in strong

twilight, and when the daylight is strong enough to render stars of the 2-3 magnitude invisible in its neighbourhood.

"The motion is then parallel to the horizon.

"The star moves backwards with three or four movements with great quickness, and then forwards in the same direction, and remains five or six seconds at the extreme end of the arc which it has described, before it passes backwards again.

"If the twilight is very bright, and if the star is very low, the motion takes place in an angle of about forty-five degrees with the horizon, and does not exceed above half a degree.

"In the absence of twilight, or in stars which are higher than ten degrees above the horizon, no motion is perceptible."

## THE GREAT SOLAR ECLIPSE OF MARCH, 1858.—BAILY'S BEADS.—

The accompanying Diagram shows the appearance of the "Baily Beads" on the northern or eastern cusp of the Sun during the eclipse of March 15, 1858, together with the prolongation of faint light (which was supposed to be a portion of the corona) on which the Moon's limb appeared to be projected.



"BAILY'S BEADS" AND "CORONA," AS SEEN DURING THE ECLIPSE OF MARCH 15, 1858.

The inner portion of the crescent of the Sun's disc visible was as uneven as is here represented, from which it is apparent that the irregular points and slender lines of light here given may be fairly surmised to be due to the mountains on the lunar surface. The "Baily Beads" remained visible for nearly four minutes; the corona was only seen for a few seconds, during which the Sun was free from clouds. The Northumberland equatorial of the Cambridge Observatory, armed with a power of 250, was the instrument made use of, as stated in the ILLUSTRATED LONDON NEWS of March 20, 1858.



# THE ILLUSTRATED LONDON ALMANACK FOR 1859.



APRIL.

Day of Month.	Day of Week.	ANNIVERSARIES, FESTIVALS, REMARKABLE EVENTS.	SUN.						MOON.						HIGH WATER AT						PLANETS															
			Rises at London.			SOUTH.			Sets at London.			Rises at London.			SOUTH.			Sets at London.			Age.			LONDON BRIDGE.			LIVERPOOL DOCK.			Day of M.	Rise.	South.	Set.			
			H.	M.	S.	H.	M.	S.	H.	M.	S.	H.	M.	S.	H.	M.	S.	H.	M.	S.	H.	M.	S.	H.	M.	S.	H.	M.	S.					H.	M.	S.
1	F	Day breaks 3h. 39m.	5	38	12	4	3	6	30	4	53	10	35	4	33	28	1	2	1	20	10	15	10	31	Mercury.	{	1	5	56	M	1	11	A	8	27	A
2	S	Twilight ends 8h. 33m.	5	36	12	3	45	6	32	5	4	11	17	5	48	29	1	37	1	53	10	46	11	1			6	5	40	1	8	8	37			
3	S	4TH S. in LENT	5	34	12	3	27	6	34	5	16	Aftern.	7	5	●	2	8	2	23	11	17	11	33	11			5	23	0	55	8	27				
4	M	St. Ambrose	5	32	12	3	9	6	36	5	30	0	47	8	26	1	2	39	2	55	11	49	—	16			5	4	0	32	7	59				
5	Tu	Bank Stock Dividend due	5	30	12	2	51	6	37	5	47	1	37	9	49	2	3	11	3	27	0	5	0	21	21	4	47	0	4	7	20					
6	W	Sun rises at Dublin 5h. 24m.	5	27	12	2	34	6	39	6	9	2	32	11	12	3	3	43	4	0	0	38	0	55	26	4	29	11	33	M	6	36				
7	Th	Sun sets at Dublin 6h. 42m.	5	25	12	2	16	6	40	6	42	3	30	Morn.	4	4	17	4	35	1	13	1	33	Venus.	{	1	4	23	9	23	2	24				
8	F	Sun rises at Edinburgh 5h. 15m	5	23	12	1	59	6	42	7	28	4	31	0	30	5	4	55	5	16	1	54	2			16	6	4	17	9	25	2	34			
9	S	Sun sets at Edinburgh 6h. 54m.	5	21	12	1	42	6	44	8	31	5	33	1	34	6	5	38	6	2	2	40	3			7	11	4	10	9	28	2	48			
10	S	5TH S. in LENT	5	19	12	1	26	6	45	9	50	6	33	2	22	D	6	29	7	0	3	38	4			14	16	4	2	9	30	2	59			
11	M		5	16	12	1	9	6	47	11	17	7	30	2	57	8	7	36	8	18	4	56	5	45	26	3	44	9	34	3	25					
12	Tu	Gold discovered in Australia, 1851	5	14	12	0	53	6	49	Aftern.	8	23	3	21	9	9	7	9	55	6	33	7	19	Mars.	{	1	6	36	2	6	A	9	37			
13	W	Day breaks 3h. 4m.	5	12	12	0	37	6	51	2	11	9	12	3	39	10	10	41	11	22	8	0	8			32	6	6	24	2	1	9	39			
14	Th	Twilight ends 9h. 1m.	5	10	12	0	22	6	52	3	36	10	0	3	54	11	11	54	—	8	59	9	24			11	6	13	1	55	9	38				
15	F	Cambridge Lent Terms ends	5	8	12	0	6	54	4	59	10	47	4	7	12	0	21	0	46	9	47	10	8			16	6	2	1	50	9	38				
16	S	Oxford Lent Term ends	5	6	11	59	51	6	56	6	21	11	35	4	20	13	1	9	1	30	10	28	10	47	26	5	40	1	39	9	39					
17	S	PALM SUNDAY	5	3	11	59	37	6	57	7	44	Morn.	4	34	○	1	50	2	9	11	6	11	25	Jupiter.	{	1	8	12	4	22	0	35	M			
18	M	Sun rises at Edinburgh 4h. 49m.	5	1	11	59	23	6	59	9	6	0	23	4	52	15	2	28	2	47	11	44	—			6	7	55	4	6	0	20				
19	Tu	Alphege	4	59	11	59	9	7	1	10	25	1	14	5	13	16	3	6	3	24	0	2	0			20	11	7	38	3	50	0	5			
20	W	Sun sets at Edinburgh 7h. 15m.	4	59	11	59	9	7	1	10	25	1	14	5	13	16	3	6	3	24	0	2	0			20	16	7	22	3	34	11	46	A		
21	Th	Maundy Thursd.	4	57	11	58	56	7	2	11	35	2	7	5	42	17	3	42	4	0	0	38	0	56	21	7	5	3	18	11	31					
22	F	Good FRIDAY	4	55	11	58	43	7	4	Morn.	3	0	6	22	18	4	18	4	36	1	14	1	32	Saturn.	{	1	0	3	A	7	54	3	49	M		
23	S	St. George	4	53	11	58	30	7	6	0	44	3	53	7	13	19	4	54	5	12	1	50	2			9	6	11	43	M	7	24	3	29		
24	S	EASTER SUNDAY	4	51	11	58	18	7	7	1	18	4	45	8	16	20	5	31	5	52	2	30	2			52	11	11	23	7	14	3	9			
25	M	Easter Monday	4	49	11	58	7	7	9	1	51	5	35	9	24	21	6	14	6	39	3	17	3			44	16	11	4	6	55	2	50			
26	Tu	Easter Tuesday	4	47	11	57	56	7	10	2	15	6	21	10	38	C	7	6	7	38	4	16	4	55	26	10	45	6	36	2	30					
27	W	Day breaks 2h. 20m.	4	45	11	57	45	7	12	2	33	7	6	11	49	23	8	17	8	58	5	36	6	16	26	10	26	6	17	2	11					
28	Th	Mutiny of the Bounty, 1789	4	43	11	57	35	7	14	2	47	7	48	Aftern.	24	9	38	10	15	6	53	7	29	Uranus.	{	1	7	23	3	17	11	11	A			
29	F	Sun rises at Dublin 4h. 31m.	4	41	11	57	25	7	15	2	59	8	29	2	14	25	10	51	11	22	8	0	8			27	6	7	4	2	58	10	52			
30	S	Sun sets at Dublin 7h. 26m.	4	39	11	57	16	7	17	3	11	9	11	3	28	26	11	49	—	8	50	9	11			16	6	25	2	21	10	17				
			4	37	11	57	8	7	18	3	22	9	54	4	43	27	0	12	0	33	9	31	9			49	21	6	6	2	2	9	58			
																								26	5	46	1	43	9	40						





MAY. - FROM "THE ILLUSTRATED LONDON NEWS."



## BRITISH BIRDS OF THE SEASON.

MAY AND JUNE.

MAY opens upon us—"the time of the singing of birds is come, and the voice of the turtle is heard in our land." It is the month of Flora, and she scatters her treasures with a liberal hand; blossoms unnumbered adorn bank and hedgerow, copse and dingle, and the vernal air breathes fragrance. The meadows are o'erspread with a carpet of gold; green are the trees, but not not all green alike; varied are the hues of the foliage, but every hue is tender and delicate—soon, indeed, to deepen beneath the fervid sun of June. All is life and animation. There is a murmur of insects in the air; clouds of mayflies, ephemeral creatures, are dancing over the surface of the river, from which they have just emerged, and the speckled trout is leaping at them. The angler is abroad, tracking the windings of the stream, with eye attentive, and with hand well skilled, "to fix with gentle twich the barbed hook," "or throw, in quick judging, the delusive fly." On rapid wings dart countless dragonflies (*Zibelulæ*), leaving their larva-cases attached to the tall grass stems along the borders of pool or river, recently their abode. Like the ephemere, their incomplete stage of existence is aquatic; their perfect stage aerial. Bees are hurrying from flower to flower; ants are at work, raising their hillocks of sand, with a maze of mines and winding tunnels below. Young lambs are sporting in the pastures, there is sheep-washing in the pool—not without noise and laughter, mixed with the murmur of the overshot water-mill. Such rural pictures invite the pencil of the artist, and May is one of his favourite months.

All our summer birds have returned. The gushing strain of the nightingale resounds from the low, close thicket. The blackcap, from leafy covert, in orchard, lawn, or copse, pours forth his rich and varied warble. The flycatcher is darting to and fro in short flights, returning after each excursion to the same perch of observation. Wheatears, in abundance, are now scattered over commons, heaths, and sheep-walks; and there, too, is the stone curlew wheeling in small flocks. The ruff and the reeve have arranged their affairs, after some contests between rival males, and are breeding in the rushy bogland, where the golden plover and the lapwing have also found a congenial nesting-place. As we traverse the low meadow lands, soon to be invaded by the mower's scythe, the monotone of the corn-crake or landrail is heard on every side around us—crake, crake, crake, is its incessant cry; now it sounds near, as if the cunning birds were close beside us; anon it sounds at a distance,—now in one direction, now in another. Is the bird a ventriloquist, or does it thread the mazes of the grass jungle with such rapidity as to be here, there, and everywhere within the lapse of a few seconds? surely it intones its voice so as to deceive the ear of the listener.

The swallow, the martin, and the little sand-martin are skimming the meads and the ponds in zigzags and circles, snapping at the insects as they pass; and the long-winged swift is wheeling round tower and spire, screaming as he dashes along. Unlike the swallow or the martin, the swift never skims the ground. He pursues his insect prey in a higher region, and it is not improbable that the early failure of the peculiar insects on which he feeds may necessitate his departure early in August. Again, the swift raises only one brood—the swallow and martin two or three. In Spain, as in England, the swift retires in August. The young, two in number, on leaving the nest are strong on the wing, and fitted for the performance of a long aerial journey.

From the swallows, into the history of which our limited space forbids us to enter, we naturally pass to the goatsucker, churn-owl, fern-owl, or night-jar (*Caprimulgus Europæus*), one of our most interesting summer visitors. Much did this bird engage the attention of Gilbert White; not without reason; and we can personally attest to the accuracy of his account. The superstition which attributed mischief from this bird to goats, calves, and even cows (a superstition of great antiquity, as may be concluded from its Latin name *Caprimulgus*, goatmilkner) is, we should hope, obsolete. No doubt it arose from the habit which this bird displays of wheeling and sweeping on buoyant wing around cattle reposing at eventide in the pastures. It is not, however, the cattle that attracts it, but the various crepuscular insects which, from one cause or another, are induced to attend them, such as moths and scarabæi, or beetles. Moths and coleopterous insects, especially the two chaffers (*Melolonthæ*), are the favourite food of the nightjar; and in chase of these it skims sometimes near the ground, sometimes aloft, careering round oak and yew-tree, and occasionally uttering a short feeble squeak as it sweeps along. Wide in the gape of its bill, and well furnished along the rim with stiff bristles, so as to form a fringe; hence it easily seizes and retains the largest insects, whose wings, or elytra (wing cases) it disengages by means of the long expanded and strongly pectinated (comb-toothed) claw of the central foretoe. This claw, probably, also assists the bird in perching lengthwise on the branch of a tree, the top of park palings, or other such resting-places. In the heron and its kindred the nail of the middle toe is similarly pectinated. The nightjar is crepuscular and nocturnal. During the day it reposes in some obscure retreat: sometimes amidst extensive fern-beds—sometimes amidst the thickets of wooded dells or tangled brakes, emerging at eventide. It is then that, perched on some selected station, it utters its vibrating, jarring note (not unlike the loud murmur of a spinning-wheel), continued sometimes uninterruptedly for several minutes, its throat dilated, its under mandible quivering, and its head depressed.

The goatsucker, or nightjar, lays two eggs on the bare earth, sometimes under overreaching fronds of fern, or the slight covert of shrub or tuft. The leaves of the elm are rapidly developing, and from the now-clothed branches proceeds a call-note which strikes upon the ear. "Peep, peep, peep" is the reiterated cry. It is the call-note of the wryneck. The wryneck is the avant courier of the cuckoo, preceding the latter by a few days; such, at least, is the common opinion. It is a curious and interesting bird; beautiful, also, from the admirable marbling of its plumage, which blends with the brown tints of the bark of the trees it frequents—the elm in particular, so far as concerns the southern portions of our island. Indeed, it is by no means common, as far as our own experience goes, in the more northern counties. We have never seen it in Cheshire, Derbyshire, or Lancashire, nor yet in the adjacent part of Yorkshire; at the same time, we do not deny that it may be an occasional visitant. The elm in those counties is not the ordinary tree that it is in Middlesex, Kent, Essex, &c. In many respects the wryneck approaches in habits to the woodpecker, ascending the trunks of trees with the greatest facility, its feet being zygodactylæ, that is with two toes before and two behind; but the tail consists of soft instead of rigid feathers. Its beak is not very long, but conical, and sharp-pointed; and the tongue is long, worm-like,

glutinous, and capable of being projected to a remarkable extent; it is horny at the point, and, when projected, vibrates as if hung on a delicate spiral spring. Ants and their larvæ are its food; it searches for them in the chinks and fissures of the bark, and hesitates not to visit the ant-hills on the ground. By means of its singular tongue (reminding us of that of the anteater, or *Myrmecophaga*), it picks them up with marvellous celerity, and with a motion of the tongue too rapid to be distinctly followed by the eye. The holes of decayed trees constitute the nursery in which it incubates and rears its brood. But why the term wryneck? When molested on its nest it keeps on the defensive, writhing its elongated neck like a snake, erecting its crest, and uttering a hissing sound. When captured it twists its neck with singular contortions, the black streak running down the nape, adding to the effect.

The wryneck, we have said, is the precursor of the cuckoo of "the blythe newcomer," "the beauteous stranger of the grove," "the messenger of spring." Such are the terms with which Wordsworth and Logan greet it; while *Bottom the Weaver* calls it in rustic phrase, and most unpoetically, "the plain-song cuckoo." Welcome is the voice of the cuckoo; we have listened to it in days gone by, when, unpalled by the wear and tear of life, we revelled without alloy in the scenes of nature; and even now can we say with Wordsworth—

O, blythe newcomer, I have heard;  
I hear thee and rejoice.

Or with Logan—

Delightful visitant! With thee  
I hail the time of flowers,  
And hear the sound of music sweet  
From birds among the bowers.

Our delights spring from the association of ideas—from the memory of the past—hence we welcome the arrival of the "plain-song cuckoo." At the same time there is much in the history of this bird of spring, for so far excellence may we call it to afford interest. Turn we to our plate—a hedge-sparrow's nest, with two anxious parent birds peeping into it with evident surprise. Above, the cuckoo is uttering its familiar call, while the swallows are giving chase to their insect prey in the clear sky. Gilbert White calls the cuckoo "vagrant," because, being tied down by no incubation or attendance about the nutrition of its young, it wanders without control. The cuckoo is, in fact, a regular impostor, and gulls other birds to hatch its eggs and rear its young to the destruction of their own actual offspring. The cuckoo makes no nest, but the females prowl about, watching the nests of such birds as the hedge-sparrow, the wagtail, the robin, the meadow pipit, whitethroat, &c. During the temporary absence of the legitimate owners it deposits in each a single egg, the small size of which occasions no derangement. There can be little doubt that this egg is introduced by means of the beak. Le Vaillant, indeed, shot cuckoos in Africa carrying their egg in the throat, ready for transference on the first favourable opportunity. Certain it is that the female cuckoo does not press her body on the frail nest of the small warbler, too small to receive her, and which would be greatly disarranged by any such attempt. In fact, Mr. Jesse (see his edition of White's "Selborne," p. 107) states that he has found the egg of a cuckoo in a nest built in so small a hole in a garden wall that it was absolutely impossible for the cuckoo to have got into it. He considers that the egg is deposited by means of the foot—we doubt it. Be this, however as it may, the cuckoo (which it is now ascertained lays several eggs) thus nefariously provides for the rearing of its offspring. \* It does the young cuckoo repay the care of its foster parents; as it increases in size and strength, instigated, perhaps, rather by want of room in the nest than malice, it dislodges its weaker companions by insinuating itself under them, and by a sort of jerk forcing them overboard. Thus it secures to itself the exclusive attention of its dupes of foster-parents. This process was witnessed by Dr. Jenner, to whom the credit of the discovery is generally attributed; but it was known to Shakspeare—

And being fed by us you used us so  
As that ungentle gull, the cuckoo's bird,  
Useth the sparrow: did oppress our nest,  
Grew by our feeding to so great a bulk,  
That e'en our love durst not come near your sight.  
"King Henry IV., part 1, act v, scene 1.

The habit of depositing its eggs in the nests of other birds is not peculiar to the European cuckoo; it prevails, as Le Vaillant ascertained, among the gilded cuckoos of South Africa, whilst all the species of this genus observed by Mr. Gould in Australia had the same habit. Nay, other birds, very different in most respects from the cuckoo, display the same *modus operandi*. The cowbird (*Molothrus Pectoris*), of North America, a bird approximating to the starling, makes no nest, but deposits her eggs in those of other species.

The cuckoo is essentially insectivorous, and its stomach has been repeatedly observed to be coated internally with a dense lining of hairs. These, as microscopic examinations prove, are from the larvæ, or hairy caterpillars of the tiger-moth (*Aretia Carya*). Does this hairy coating ever become detached, rolled up, and regurgitated, as in the case of hawks and owls, which cast out, in the form of pellets, the indigestible portions (as hair, feathers, and bones) of the prey they swallow?

How largely might we here expatiate upon birds' nests! but our space is limited. The early breeders have hatched their broods—such as the rook, the heron, the thrush, and the blackbird. The wild duck is leading her little train along the reedy margin of the lake or pool, long since deserted by her ungallant mate, who leaves to her the entire charge of incubation and nursing, and joins an exclusive club of mallards, similarly situated, in the society of which he finds his enjoyment. So passes May—it blends into June, and still birds are building—some even their second nests, others only their first. Busy are the starlings and the jackdaws on the old tower or steeple: they are feeding their young. So, too, are the ubiquitous sparrows—building in every "coyne of vantage," on temple or house-top, on the beams of the barn-loft, as well as in the branches of the trees adjacent.

Most interesting at this season is the farm-yard, replete with its stock of poultry—turkeys, fowls, pintados, ducks and geese. Broods of younglings are wandering about; the old hen is agitated on the slightest appearance of danger to her charge, and if these be ducklings, she views with alarm their familiarity with the water of the pond. Yellow goslings traverse the close-cropped sward, and fierce is the hissing gander in their defence. Bats at eve are flitting around, and the buzz and murmur of insects fills the air. The fulness of summer is come.

\* Query—is the egg introduced by the female or by her attendant male? It is a question yet to be solved, and we invite the consideration of our leading ornithologist, Mr. Gould, to the subject.





THE EAST GATE, CANTON.—FROM "THE ILLUSTRATED LONDON NEWS."

#### THE WALLS AND GATES OF CANTON.

THAT part of Canton which is situated within the walls is built in the form of an irregular square, and divided by another wall, which runs from east to west, into two parts. The north and largest portion is called the old city; the south part is called the new city. The whole circuit of the two together has been perambulated with ease in two hours, and may therefore be about six or seven miles. To the south the wall runs parallel to the river at the distance of fifteen or twenty rods: on the north, where the city is built partly up the acclivity of the hills in the rear, the wall takes an irregular course, and it may be as much as 300 feet above the surface of the

river. The walls are composed of brick, with a foundation of coarse red sandstone, and vary in height from twenty to thirty feet. The gates of the city are sixteen in all, but four of them lead through the wall which separates the old from the new city; so that there are only twelve outer gates, each distinguished by a name descriptive of its position.

The above Engraving of the East Gate is from a Sketch by the Special Artist at Canton of the ILLUSTRATED LONDON NEWS. It was about half a mile to the north of this gate where the men of the 59th and the French with the English Engineers and Sappers attached to the French, escalated the wall. There is a bastion here—a protruding half-square tower—and on each side of this the scaling-ladders were fixed.





SAMPAN GIRL ON CANTON RIVER.—FROM, "THE ILLUSTRATED LONDON NEWS."

## REGULATIONS RESPECTING PASSPORTS.

APPLICATIONS for passports must be made in writing, and inclosed in a cover addressed to "Her Majesty's Secretary of State, Foreign Office, London," or to an Agent at one of the specified outposts, with the word "Passport" conspicuously written on the cover.

Passports are issued at the Foreign Office between the hours of eleven and four, on the day following that on which the application for the passport has been received at the Foreign Office; but the passport will be issued at the outposts immediately on application, accompanied by the production of a certificate of identity, within such hours as may be fixed with regard to the convenience of persons desirous of embarking for the Continent.

The charge on the issue of a passport, whatever number of persons may be named in it, is 2s., which sum includes the stamp duty of 6d.

Foreign Office passports are granted only to British-born subjects or to citizens of the Ionian States, or to such foreigners as have become naturalised either by Act of Parliament or by a certificate of naturalisation granted by the Secretary of State for the Home Department. When the party is a "naturalised British subject," he will be so designated in his passport; and, if his certificate of naturalisation be dated subsequently to the 24th of August, 1850, his passport will be marked as good for one year only; but this regulation will not preclude any person whom it affects from obtaining, at any future period, on his producing his old passport, a fresh passport for a further period of one year, without being required to pay a fresh charge.

Passports are granted to all persons, either known to the Secretary of State or recommended to him by some person who is known to him; or upon the application of any banking firm established in London or in any other part of the United Kingdom; or upon the production of a certificate of identity signed by any mayor, magistrate, justice of peace, minister of religion, physician, surgeon, solicitor, or notary in the United Kingdom.

A passport cannot be sent by the Foreign Office, or by an agent at an outpost, to a person already abroad: such person should apply for one to the nearest British mission or consulate.

Foreign Office passports must be countersigned at the mission in London,

or at some consulate in the United Kingdom, of the Government of the country which the bearer of the passport intends to visit.\*

A Foreign Office passport granted to a British-born subject or to a citizen of the Ionian States, or to a "naturalised British subject" whose certificate of naturalisation is dated previously to August 24, 1850, is not limited in point of time, but is available for any time, or for any number of journeys to the Continent, if countersigned afresh by the Ministers or Consuls of the countries which the bearer intends to visit; but a passport granted to a "naturalised British subject" whose certificate is dated subsequently to the 24th of August, 1850, is only available for the period for which the passport was originally granted.

## CONSULAR FEES TO BE PAID FOR EACH VISA.

Austria ..	Gratis.	France ..	4s. 3d.	Russia ..	1s. 7d.
Baden ..	2s. 6d.	Greece ..	2s. 6d.	Spain ..	Porter 1s.
Bavaria (if not signed, Consul, 2s. 6d.) ..	Gratis.	Holland ..	5s. 6d.	Sweden and Norway	Gratis.
Belgium ..	3s. 6d.	Mexico ..	4s. 6d.	Switzerland ..	2s. 6d.
Brazil ..	Porter 1s.	Naples and Sicily ..	4s. 6d.	Turkey ..	Porter 1s.
Denmark ..	Gratis.	Peru ..	Porter 1s.	Tuscany ..	4s. 6d.
		Portugal ..	Porter 1s.	Wurtemberg ..	4s. 6d.

## LIST OF THE PRINCIPAL OFFICES IN LONDON WHERE FOREIGN OFFICE PASSPORTS ARE TO BE VISED.

Austrian Legation ..	Chandos House, Chandos-street, Cavendish-square.
Bavarian Legation ..	3, Hill-street, Berkeley-square.
Belgian Consulate ..	53, Gracechurch-street.
French Consulate ..	36, King William-street, City.
Netherlands Consulate ..	29, Great St. Helen's.
Portuguese Consulate ..	5, Jeffreys-square, St. Mary Axe.
Russian Consulate ..	32, Great Winchester-street.
Sicilian Consulate ..	15, Cambridge-street, Edgware-road.
Spanish Legation ..	17, Hereford-street, Park-lane.
Turkish Embassy ..	1, Bryanston-square.

\* It is requisite that the bearer of every passport granted by the Foreign Office should sign his passport before he sends it to be viséd at any Foreign mission or consulate in England; without such signature either the *visa* may be refused, or the validity of the passport questioned abroad. And travellers who may have any intention of visiting the Austrian States at any time in the course of their travels on the Continent are particularly and earnestly advised not to quit England without having their passport viséd at the Austrian Mission in London; but there is no necessity for the *visa* to a Foreign Office passport of either the Prussian or Sardinian authorities in the United Kingdom.



## APRIL.

THE SUN is north of the Equator and remains in the sign of Aries until 3h. 24m. P.M. of the 20th, when it passes into that of Taurus.

The Moon is near Mercury on the morning of the 5th, near Mars on the morning of the 6th, near Uranus on the morning of the 7th, near Jupiter on the morning of the 8th, and near Saturn on the afternoon of the 11th. It is at its shortest distance from the Earth on the night of the 11th, and at its greatest distance on the evening of the 24th.

New Moon occurs at 18 minutes past 10 on the morning of the 3rd.  
First Quarter " 21 " 11 on the morning of the 10th.  
Full Moon " 6 " 9 on the morning of the 17th.  
Last Quarter " 45 " 4 on the morning of the 25th.

MERCURY is in the constellation of Aries at the beginning of the month, and in that of Cetus at the end of the month. It is favourably situated for telescopic examination during the first ten or twelve days, but is afterwards in too close proximity to the Sun. It is at its greatest easterly elongation from the Sun on the 3rd, is near the Moon on the 4th, stationary on the 12th, and in inferior conjunction to the Sun on the 22nd.

VENUS is in the constellation of Aquarius at the beginning of the month, and in that of Cetus at the end of the month. It is more favourably situated for observation, but the phases are not so interesting, nor the planet so large and bright, as at the commencement of the year. It is close to Lambda Aquarii on the afternoon of the 12th, and very near Phi Aquarii throughout the day of the 16th. It is about five degrees south of the Moon at midnight of the 29th.

MARS is in the constellation of Aries at the beginning of the month, and in that of Taurus at the middle and end of the month. It is five degrees south of the Moon at midnight of the 5th, and about three-quarters of a degree north of Uranus on the morning of the 28th. It may still be seen in the north-west horizon shortly after sunset. The diameter of its disc is less than four seconds of space during this month.



GROUP OF NEBULÆ IN THE NORTHERN WING OF VIRGO.

UPPER is five degrees south of the Moon at 4 A.M. of the 8th. It is now becoming fainter, but is still a conspicuous object in the western sky in the earlier part of the evening. It remains in the constellation of Taurus throughout the month.

SATURN is stationary on the 6th, and is afterwards moving from west to east. It is near the Moon on the afternoon of the 4th, and in quadrature with the Sun on the 26th. It continues to be the most favourably-situated of the planetary bodies, and is visible till nearly daybreak. It remains in the constellation of Cancer throughout the month.

URANUS is 5° 22' south of the Moon at 1h. 16m. A.M. of the 7th, and remains in the constellation of Taurus throughout the month.

ECLIPSES OF JUPITER'S SATELLITES.—April 6th, 8h. 35m. afternoon, reappearance of first; April 13th, 10h. 31m. afternoon, reappearance of first; April 16th, 8h. 15m. afternoon, reappearance of third; April 23rd, 9h. 34m. afternoon, disappearance of third; April 29th, 8h. 51m. afternoon, reappearance of first; April 30th, 9h. 24m. afternoon, reappearance of second.

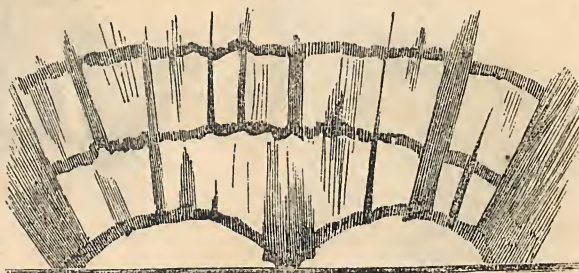
In the northern wing of Virgo, which is now favourably situated in the southern heavens, there exists a remarkable group of nebulae of all sizes and degrees of condensation, more than one hundred being contained in a surface of ten degrees in right ascension and declination. Whilst so rich in systems and sidereal universes, it is by no means equally so in individual stars, this portion of the heavens being near the northern pole of the Milky Way, in which, as well as in the southern, the number of stars on a given surface arrives at its minimum. Many of the nebulae in this constellation are visible in small telescopes, and were, indeed, discovered with the aid of such instruments by Messier; others, however, are of the last degree of faintness, and barely come into sight when the rays are collected in the largest mirrors and lenses. By far the greater number of nebulae in this as well as in other parts of the heavens are more or less of a circular form.

We are now, according to the almanack, fairly launched into the spring quarter, which commenced on the early morning of March 21, when the Sun "crossed the Line." Yet, with every inducement to live and dwell in the open air—flowers springing under our feet, the hedgerows covered with verdure, the nightingale and cuckoo in full song, our native warblers singing as cheerfully as the foreign musicians, and, with the exception of the nightingale (which, we must sorrowfully confess, is beyond compare), beating the blackcap, the whitethroat, *et hoc genus omne* of migratory birds fairly to nothing—with all those inducements we are yet content, nay, constrained, to remain by the fireside for a month or so after the spring quarter (according to our own and every other almanack) has commenced. The weather still continues very changeable, and the nights are frequently very cold and frosty. This wintry weather sometimes continues up to the middle of May; and on the 1st of May, 1856, we remember passing through Bottisham (the Rev. Leonard Jenyns' paternal estate) during the prevalence of a frost, sleet, snow, and wind which would have done honour to mid-winter, and which might be mentioned in that gentleman's interesting "Observations in Meteorology" (from which we have borrowed so much) as an anomaly in its way.

## SPLENDID AURORA BOREALIS.

THE Aurora Borealis of April 9, 1858, was almost as magnificent as the displays of 1847 and 1848. It commenced at 8h. 50m. p.m., with two intense masses of orange-coloured lights, the one near the W. and the other near the E. horizon; an arch shot across the sky and united these masses, and soon after curtains formed, and coruscations sprang up indiscriminately from E. to W., with fainter and more diffused flashings extending quite to the zenith. The changes were so rapid that it was difficult to sketch the outline before an alteration took place. At 9h. 20m. there were three arches, the basal one having two spans: strong masses of

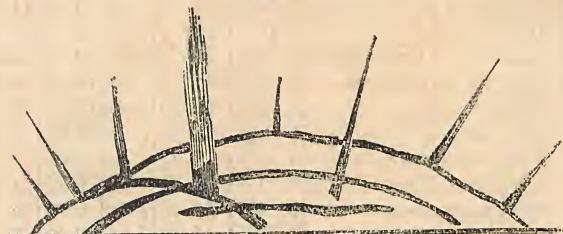
9h. 20m.



Horizon.

light proceeded from each extremity and from the centre, but no coruscations issued from the uppermost arch; five minutes later the basal arch had only one span, and the middle only of the centre arch was visible. 9h. 31m. a mass of light rose under Cassiopeia to the altitude of the Pleiades; from this altitude to that of Cassiopeia the sky was free of aurora. The streams drew towards a point S. of the zenith, yet did not reach within ten degrees of the position on the magnetic meridian to which the dipping-needle points. 9h. 36m., the ILLUSTRATED LONDON NEWS could be plainly read by the light of the phenomenon. 9h. 51m., some fine curtains. 10h. 8m., an ill-defined arch, formed of curtains, extended from Orion to under and just north of Vega. The upper edge reached Epsilon Cassiopeie. Within the arch the sky was not darker than elsewhere. The coruscations dimmed the stars. 10h. 58m., two arches, the upper arch having twice the span of the lower one: they both rose from the same spot, in W., the one terminating in N., and the other in E. 11h. 0m. coruscations extended ten degrees beyond Gemini, others reached Polaris and Vega; the arch in N. confused; the sky cloudless except a black streak, one degree wide, which, in the form of a double arch, stretched along the horizon from S.E. to S.S.W., at an altitude of ten degrees: this arch lasted till 3 a.m. 11h. 45m., a single arch, with a thickened portion E. of the apex. 12h. 10m., the upper edge of the arch crossed Procyon, Capella, and Delta Cassiopeie, the lower edge touching Alpha Persei. 12h. 41m., Capella and Cassiopeie were both above the arch: a coruscation passed through Capella, and another through the Crab nebula. 12h. 54m., a splendid coruscation passed through Beta

12h. 59m.



Horizon.

Auriga, extending to Alpha Urse Majoris. 12h. 59m., again three arches; beneath the upper ones, and crossing the smaller one, was a linear black mass. From this time up to 4 a.m. the aurora gradually faded away. No arch visible after 1h. 30m. The coruscations all moved westerly. There was a great similarity between the E. and W. extremities. During the display there was strong positive electricity, and the magnetic needle much disturbed: at 9 a.m. on the 10th it was one degree from its ordinary position. The wind was brisk from E.N.E., with frost.





Day of Month	Day of Week	'ANNIVERSARIES, FESTIVALS, REMARKABLE EVENTS.	SUN.					MOON.					HIGH WATER AT				PLANETS.				
			Rises at Lon- don.	SOUTH.	SETS at Lon- don.	Rises at London. Morn.	SOUTH.	SETS at London. Aftern.	AGE.	DYS.	LONDON		BRIDGE.		LIVERPOOL DOCKS.		Day of M	Rise.		South.	Set.
											Morn.	Aftern.	Morn.	Aftern.	Morn.	Aftern.		H. M.	H. M.		
1	S	LOW SUNDAY	4 35	11 57	07 20	3 35	10 39	6 1	28	0 53	1 11	10 7	10 25	1 11	10 25	1	4 15 M	11 6 M	5 54 A		
2	M	S. Phil. & S. Jas.	4 33	11 56	53 7	3 51	11 28	7 27	29	1 29	1 47	10 43	11 1	1 11	10 43	6	4 1	10 45	5 29		
3	Tu	Invent. of Cross	4 31	11 56	46 7	4 12	Aftern.	8 52	1	2 5	2 23	11 19	11 38	1 11	11 38	11	3 48	10 31	5 14		
4	W	Oxford and Cambridge Easter Term begins	4 29	11 56	39 7	4 42	1 20	10 14	2	2 41	3 0	11 58	—	1 11	11 58	16	3 38	10 23	5 8		
5	Th	Manchester Exhibit. opened, 1857	4 28	11 56	34 7	5 23	2 23	11 25	3	3 20	3 41	0 19	0 40	1 11	0 40	21	3 26	10 20	5 15		
6	F	St. J. Evangelist	4 26	11 56	29 7	6 23	3 26	Morn.	4	4 2	4 23	1 1	1 23	1 11	1 23	26	3 18	10 22	5 27		
7	S	Twilight ends 1h. 43m.	4 24	11 56	24 7	7 39	4 28	0 20	5	4 45	5 8	1 46	2 11	1 11	2 11	1	3 36	9 37	3 39		
8	S	2ND S. aft. EAST.	4 22	11 56	20 7	9 5	5 26	0 59	6	5 33	6 2	2 40	3 11	1 11	3 11	6	3 27	9 39	3 52		
9	M	Sun rises at Dublin 4h. 12m.	4 21	11 56	16 7	10 32	6 19	1 26	D	6 33	7 5	3 43	4 18	1 11	4 18	11	3 18	9 41	4 6		
10	Tu	Mutiny at Meerut, 1857	4 19	11 56	13 7	11 59	7 9	1 45	8	7 40	8 18	4 56	5 38	1 11	5 38	16	3 10	9 43	4 18		
11	W	Length of day 15h. 9m.	4 17	11 56	11 7	Aftern.	7 57	2 0	9	9 0	9 38	6 16	6 53	1 11	6 53	21	3 1	9 46	4 32		
12	Th	Easter Term ends	4 15	11 56	9 7	2 44	8 43	2 15	10	10 15	10 48	7 26	7 57	1 11	7 57	26	2 52	9 49	4 48		
13	F	Day breaks 1h. 18m.	4 14	11 56	8 7	4 4	9 29	2 27	11	11 19	11 48	8 26	8 52	1 11	8 52	1	5 28	1 34 A	9 40		
14	S	Twilight ends 10h. 43m.	4 13	11 56	7 7	5 26	10 16	2 41	12	—	0 14	9 16	9 40	1 11	9 40	6	5 19	1 28	9 37		
15	S	3RD S. aft. East.	4 11	11 56	7 7	6 46	11 6	2 56	13	0 38	1 2	10 2	10 23	1 11	10 23	11	5 11	1 23	9 35		
16	M	Sun rises at Edinburgh 3h. 49m.	4 10	11 56	7 7	8 5	11 57	3 16	O	1 24	1 45	10 43	11 3	1 11	11 3	16	5 2	1 18	9 34		
17	Tu	Sun sets at Edinburgh 8h. 7m.	4 8	11 56	8 7	9 19	Morn.	3 42	15	2 5	2 25	11 23	11 42	1 11	11 42	21	4 54	1 13	9 32		
18	W	Sun rises at Dublin 3h. 58m.	4 7	11 56	9 7	10 22	0 49	4 17	16	2 45	3 4	—	0 1	1 11	0 1	26	4 47	1 8	9 29		
19	Th	Dunstan	4 6	11 56	11 7	11 12	1 43	5 4	17	3 23	3 41	0 19	0 37	1 11	0 37	1	6 33	2 47	11 1		
20	F	Day breaks 0h. 40m.	4 4	11 56	14 7	11 50	2 36	6 17	18	3 59	4 18	0 56	1 15	1 11	1 15	6	6 13	2 32	10 46		
21	S	Twilight ends 11h. 23m.	4 3	11 56	17 7	Morn.	3 27	7 10	19	4 37	4 56	1 34	1 53	1 11	1 53	11	6 2	2 17	10 32		
22	S	4TH S. aft. EAST.	4 1	11 56	21 7	0 17	4 15	8 21	20	5 15	5 36	2 14	2 35	1 11	2 35	16	5 47	2 2	10 17		
23	M	Length of Day 15h. 54m.	4 0	11 56	25 7	0 37	5 0	9 33	21	5 57	6 19	2 57	3 21	1 11	3 21	21	5 31	1 47	10 3		
24	Tu	Queen Victoria born, 1819	3 59	11 56	30 7	0 53	5 43	10 45	22	6 43	7 7	3 45	4 12	1 11	4 12	26	5 16	1 32	9 48		
25	W	Sun rises at Dublin 3h. 47m.	3 58	11 56	35 7	1 4	6 24	11 57	23	7 34	8 5	4 43	5 18	1 11	5 18	1	6 33	2 47	11 1		
26	Th	Trinity Term begins	3 57	11 56	41 7	1 17	7 5	Aftern.	24	8 40	9 14	5 52	6 23	1 11	6 23	6	6 13	2 32	10 46		
27	F	Sun rises at Edinburgh 2h. 30m.	3 56	11 56	48 7	1 28	7 46	2 22	25	9 45	10 14	6 52	7 20	1 11	7 20	11	6 2	2 17	10 32		
28	S	Sun sets at Edinburgh 8h. 30m.	3 55	11 56	55 8	0 140	8 30	3 38	26	10 42	11 8	7 46	8 12	1 11	8 12	16	5 47	2 2	10 17		
29	S	ROGATION SUN.	3 54	11 57	28 8	1 54	9 16	4 59	27	11 34	—	8 38	9 3	1 11	9 3	21	5 31	1 47	10 3		
30	M	No real night. Satellites of Jupiter now visible	3 53	11 57	108 2	2 12	10 8	6 24	28	0 0	0 25	9 27	9 51	1 11	9 51	26	5 16	1 32	9 48		
31	Tu	Chalmers died, 1847	3 52	11 57	188 3	2 38	11 5	7 49	29	0 49	1 13	10 14	10 37	1 11	10 37	1	6 33	2 47	11 1		



## MAY.

THE SUN remains north of the Equator during this month, and is in the sign of Taurus until 3h. 27m. P.M. of the 21st, when it passes into the sign of Gemini.

The Moon is situated near Mercury on the evening of the 1st, near Uranus on the morning of the 4th, near Mars on the same evening, near Jupiter on the evening of the 5th, near Saturn on the evening of the 8th, near Venus on the morning of the 30th, near Mercury on the same evening, and near Uranus on the night of the 31st. It is at its shortest distance from the Earth on the morning of the 7th, and at its greatest distance on the afternoon of the 22nd.

New Moon occurs at 4 minutes past	10 on the evening of the 2nd.
First Quarter " 50 "	4 on the evening of the 9th.
Full Moon " 7 "	9 on the evening of the 16th.
Last Quarter " 49 "	10 on the evening of the 24th.
New Moon " 10 "	7 on the morning of June 1st.

MERCURY is in the constellation of Cetus during the first fifteen days of the month, and in that of Aries at the end of the month. It is most favourably situated for observation about the middle of May, arriving at its greatest westerly elongation on the morning of the 20th, and being then at a considerable altitude in northerly latitudes. It is near the Moon on May 1st, stationary on the 4th, in aphelion on the 7th, and again near the Moon on the 30th.

VENUS is in the constellation of Cetus at the beginning of the month, in that of Pisces at the middle, and in that of Aries at the end of the month. It is at its shortest distance from the Sun on the afternoon of the 4th, is close to Eta Piscium on the morning of the 13th, near Omicron Piscium on the afternoon of the 21st, and about seven degrees south of the Moon on the morning of the 30th. At the beginning of the month it presents the same phase as the Moon when ten days old.



OCCULTATION OF SATURN, MAY 8, 1859.

MARS is now too near the Sun and at too great a distance from the Earth to be visible, and the diameter of the disc is less than four seconds of arc. It sets shortly after the Sun, in the north-west horizon. It remains in the constellation of Taurus throughout the month. It is four degrees and a half south of the Moon on the afternoon of the 4th.

JUPITER is now approaching too near the Sun and is too near the horizon to be well adapted for telescopic examination. The satellites, however, will remain visible throughout the month. Jupiter is  $4^{\circ} 41'$  south of the Moon at 7 P.M. of the 5th. It remains in the constellation of Taurus throughout the whole of the month. At the middle of the month its disc has a diameter of thirty-one seconds.

SATURN is now the evening star, remaining visible till after midnight throughout the month. It remains in the constellation of Cancer throughout May. It is less than a degree south of the Moon at 8 P.M. of the 8th. The ring is now equally as well seen as at the commencement of the year, the ratio of the minor to the major axis being, roughly, as 13 to 41, or the former being about one-third of the latter.

URANUS is about five degrees south of the Moon on the morning of the 4th, comes into conjunction with the Sun at 9h. 15m. A.M. of the 25th, and is again in conjunction with the Moon on the night of the 31st, being five degrees south of the latter. It is in the constellation of Taurus throughout the month.

ECLIPSES OF JUPITER'S SATELLITES.—May 22nd, 9h. 6m. afternoon, reappearance of first satellite; May 29th, 8h. 24m. afternoon, reappearance of third.

The occultation of SATURN on May 8th is the only remarkable eclipse visible in the British Islands throughout the year 1859, and will be favourably situated for observation, and occurs at a convenient hour in the evening. The disappearance of the planet at the Moon's dark limb takes place at 8h. 19m. P.M., at the point from the vertex indicated in the above figure, and the reappearance at the bright limb occurs at 9h. 18m. P.M., the planet being hid behind the disc of the Moon for nearly an hour. For those furnished with telescopes it would be desirable to scan minutely the figure of the ring and ball of the planet as it approaches and recedes from the edges of the Moon, and to notice any such irregularities, and whether it might be due or accounted for by the supposition of a lunar atmosphere. In the occultation of Jupiter, in January, 1857, a dark and thin line was noticed

along that portion of the margin of the Moon which was in contact with the planet, by various observers. The disappearance of the largest and brightest (Titan) of the satellites of Saturn may probably be observed, but the others are far too faint to be visible with so much daylight and moonlight.

The weather in May is usually genial, with the first indications of summer. The mean temperature is  $53.14$  degrees, being more than 7 degrees above that of April. The mean maximum is  $62.5$  degrees; the mean maximum  $43.9$  degrees. The highest temperature recorded is  $83.5$  degrees; the lowest 25 degrees. In some seasons May has been as hot as, if not hotter than, any other month of the year;—as in 1833, when the mean temperature rose to  $60.2$  degrees, being 7 degrees above the average. Also in the years 1847 and 1848 the mean temperature of this month was very high. In other seasons, however, very nipping frosts occur in this month, sometimes as late as the last week, causing great injury to all tender garden plants and vegetables, as well as to the young shoots of the forest trees. Among the latter, walnuts, beeches, and ash, from the circumstance of their leafing later than the other trees, appear to suffer most. Instances of this unseasonable cold occurred particularly in 1831 and 1838. In the latter year the thermometer, on the 15th and 16th of this month, fell to 26 degrees and 27 degrees respectively; and the frost of those two nights, followed by other frosts of less severity, had the effect of so completely destroying all the young foliage, that the leaves and shoots, which had been newly put forth, appeared as if burnt; and, after hanging upon the branches awhile in a withered state, fell to the ground, where they were blown about by the wind, and drifted into heaps, the same as in autumn. The trees, in the meantime, being thus stripped of their first attire, remained almost naked till midsummer, when new shoots and foliage were put forth. The woods from this cause, presented the most dreary aspect all the first part of the summer. In some years, without the occurrence of any frosts of consequence, the mean temperature of May is yet so low as very much to retard vegetation; and, when combined with a cold April, the large forest trees have been known to continue bare, as in winter, to quite the end of the month. Such was the case in 1837, in which year the mean temperature of May was only  $48.2$  degrees. The mean height of the barometer is  $29.958$  inches, being higher than the mean of any other month in the year. The mean range is  $.897$  inch. The greatest height recorded is  $30.572$  inches; the lowest is  $29.056$  inches. The quantity of rain is  $1.768$  inch. The greatest quantity ever measured in this month is  $4.60$  inches; the least quantity  $.234$  inch. The former occurred in May, 1843; the latter in 1848.

STELLAR PHOTOGRAPHY.—The application of photography to the recording of astronomical observations and phenomena has already made some progress, although not so great as that of its sister science and wonder of the age—the electric telegraph. Every one is aware that one of the principal objects of an observatory is to fix and determine the place of any heavenly object at an exact time, whether it be of comet or planet, moon or star. In the former cases we must yet trust to the ear and eye of the trained and practised observer, or to the eye and touch if use is made of the galvanic signal. But, in delineating the stellar universe, a little progress has already been made in imprinting its delicate details on the sensitive collodion film; and, with a further advance in the sensitiveness of the chemicals made use of, we may expect far more brilliant results. A vast field is here open. One of the great labours of the elder Herschel was (with the help of his gigantic telescopes) to give the respective distance, magnitude, and position of that vast class of objects, double and multiple stars; to show at a given epoch within the narrow limits of the most delicate fibre of the spider's web the angle which the one star made with the other, and their distances apart. And another far more complicated task was to delineate the clusters and nebulae spread over the heavens in such rich profusion, with all the necessary correctness, in order to enable future observers to decide whether any changes had happened in their physical constitution in a long course of years; whether, like the double stars, they had a motion round their common centre, or otherwise. The Messrs. Bond, of Cambridge, in the United States, have already turned their attention to one of those objects—viz., the delineation of a few double stars, and have found the method employed to answer perfectly. They have been able, with the help of their gigantic Munich refractor (the largest in the world), to register upon a glass collodion plate the relative distances, angles of position, and magnitudes of the stars (Mirar, Zeta, Ursæ Majoris, and Alcor) of Ursæ Majoris, and numerous others, the time of exposure being eighty seconds. The above constitute all the elements obtained in observing by the usual methods double and multiple stars. They have not yet been able to obtain images of stars fainter than the 6.7 magnitude, the companion of Epsilon Lyrae, which is less than the sixth magnitude, being the faintest star which has yet been photographed. Some singular results have been obtained during their experiments. Thus, Alpha Lyrae makes an instantaneous impression on the plate, and, when the instrument is fixed, the passage of the star across the field of view appears like a faint line, which was very slightly waved irregularly, the effect probably of disturbances in atmospheric refraction. With the daguerrotype process, however, no matter how long the exposure was continued, no image at all could be obtained of the Pole Star (second magnitude). The results obtained in the cases of Mirar and Alcor were remarkably correct, and could bear comparison with the best measurements of Struve. In the words of Bond, the advantages of this method are many and excellent:—"The record is permanent, and may be reserved for examination by daylight and at leisure; so that the favourable hours for the night may be devoted exclusively to the accumulation of data for future discussion." "Another advantage equally decisive is the extraordinary rapidity with which groups or clusters of small stars may be delineated. On some of those months of labour might now be expended, while the same work would be done as quickly and as accurately, photographically, for many hundreds of stars at once, as for a single one of the same magnitude, and all perhaps in a few seconds. Experiments show that photography is much better fitted for the delineation of the fixed stars than for the discs of the planets or the surface of the moon."

A SIMPLE BAROMETER.—On board the *Mexican* steamer is a barometer of the most simple construction, but the greatest accuracy. It consists only of a long strip of cedar, very thin, about two feet and a half in length, about an inch wide, cut with the grain, and set in a block, or foot. This cedar strip is backed or lined with one of white pine, cut across the grain, and the two are tightly glued together. To bend these when dry is to snap them; but, on the approach of bad weather, the cedar curls over until the top at times touches the ground.





Day of Month.	Day of Week.	ANNIVERSARIES, FESTIVALS, REMARKABLE EVENTS.	SUN.					MOON.					HIGH WATER AT				PLANETS.				
			Rises at Lon- don.	SOUTH.			SETS at Lon- don.	Rises at Lon- don.	SOUTH.		SETS at Lon- don.	Age.	LONDON BRIDGE.		LIVERPOOL DOCKS.		Day of M.	Rise.	South.	Set.	
				Morn.	Aftern.	Morn.			Aftern.	Morn.			Aftern.	Morn.	Aftern.						
																H. M.					H. M.
1	W	Nicomede	3 51	11 57	27 8	5	3 15	0 7	9 8	●	1 36	1 59	10 59	11 21	Mercury.	1 3 9 M	10 31 M	5 55 A			
2	Th	Ascen. day. <i>Holy Thursday.</i>	3 0	11 57	36 8	6	4 8	1 12	10 11	1	2 21	2 43	11 43	—		6 3 4	10 43	6 23			
3	F	Sun rises at Dublin 3h. 40m.	3 49	11 57	45 8	7	5 21	2 16	10 56	2	3 5	3 28	0 6	0 30		11 3 5	11 1	6 58			
4	S	Sun sets at Dublin 8h. 19m.	3 48	11 57	55 8	8	6 46	3 18	11 28	3	3 52	4 17	0 55	1 20		16 3 13	11 25	7 39			
5	S	S. AFT. ASCEN. D.	3 47	11 58	6 8	9	8 17	4 14	11 50	4	4 42	5 7	1 45	2 12	21 3 29	11 52	8 16				
6	M	Sun rises at Edinburgh 3h. 19m.	3 47	11 58	16 8	10	9 45	5 6	Morn.	5	5 34	6 1	2 39	3 8	26 3 53	0 20 A	8 47				
7	Tu	Sun sets at Edinburgh 8h. 37m.	3 46	11 58	27 8	10	11 11	5 55	0 7	●	6 30	6 59	3 37	4 7	Venus.	1 2 42	9 52 M	5 3			
8	W	Length of day 16h. 25m.	3 46	11 58	38 8	11	Aftern.	6 41	0 21	7	7 29	8 0	4 38	5 9		6 2 35	9 56	5 18			
9	Th	Day's increase 8h. 41m.	3 45	11 58	49 8	12	1 54	7 27	0 35	8	8 31	9 2	5 40	6 13		11 2 29	10 0	5 33			
10	F	Oxford Easter Term ends	3 45	11 59	1 8	13	3 13	8 14	0 47	9	9 35	10 7	6 45	7 16		16 2 25	10 5	5 47			
11	S	St. Barnabas	3 45	11 59	13 8	14	4 32	9 1	1 30	10	10 38	11 9	7 47	8 18	21 2 20	10 10	6 1				
12	S	WHIT SUNDAY	3 45	11 59	25 8	14	5 50	9 51	1 20	11	11 40	—	8 48	9 14	26 2 17	10 15	6 14				
13	M	Sun rises at Dublin 3h. 32m.	3 44	11 59	37 8	15	7 5	10 43	1 44	12	0 10	0 36	9 39	10 3	Mars.	1 4 39	1 2 A	9 25			
14	Tu	Sun sets at Dublin 8h. 25m.	3 44	11 59	49 8	15	8 12	11 36	2 16	13	1 1	1 25	10 26	10 48		6 4 34	0 57	9 20			
15	W	Oxford Trinity Term begins	3 44	12 0	28 16	9	7	Morn.	2 59	○	1 48	2 10	11 9	11 29		11 4 29	0 52	9 15			
16	Th	Trinity Term ends	3 44	12 0	14 8	16	9 49	0 29	3 53	15	2 31	2 51	11 49	—		16 4 23	0 46	9 9			
17	F	St. Alban	3 44	12 0	27 8	17	10 19	1 21	4 58	16	3 11	3 30	0 8	0 24	21 4 19	0 41	9 3				
18	S	Battle of Waterloo, 1815	3 44	12 0	40 8	17	10 41	2 10	6 8	17	3 46	4 4	0 42	1 1	26 4 16	0 36	8 56				
19	S	TRINITY SUND.	3 44	12 0	53 8	18	10 58	2 56	7 20	18	4 23	4 42	1 20	1 35	Jupiter.	1 4 58	1 14	9 30			
20	M	Accession	3 44	12 1	6 8	18	11 11	3 39	8 31	19	4 57	5 16	1 54	2 13		6 4 43	0 59	9 15			
21	Tu	Proclamation	3 44	12 1	19 8	18	11 23	4 20	9 42	20	5 35	5 54	2 32	2 52		11 4 28	0 44	9 0			
22	W	Longest Day	3 45	12 1	32 8	19	11 34	5 1	10 53	21	6 14	6 34	3 12	3 33		16 4 14	0 30	8 46			
23	Th	Corpus Christi	3 45	12 1	45 8	19	11 45	5 41	Aftern.	●	6 55	7 17	3 55	4 20	21 3 59	0 15	8 31				
24	F	St. J. Bap. <i>Midsummer day.</i>	3 45	12 1	58 8	19	11 58	6 22	1 17	23	7 42	8 10	4 48	5 18	26 3 44	0 0	8 16				
25	S	[Cambridge Term ends Kensington Museum op., 1857]	3 45	12 2	11 8	19	Morn.	7 7	2 34	24	8 40	9 10	5 48	6 18	Saturn.	1 8 17	4 4	11 51			
26	S	1st S. aft. TRIN.	3 46	12 2	23 8	19	0 14	7 55	3 56	25	9 40	10 11	6 49	7 22		6 8 0	3 47	11 34			
27	M	Sun rises at Edinburgh 3h. 19m.	3 46	12 2	36 8	19	0 36	8 48	5 21	26	10 44	11 16	7 54	8 25		11 7 43	3 29	11 15			
28	Tu	Queen Victoria crowned, 1838	3 47	12 2	48 8	19	1 6	9 47	6 42	27	11 47	—	8 55	9 23		16 7 26	3 11	10 56			
29	W	St. Peter	3 47	12 3	18 18	18	1 50	10 51	7 53	28	0 17	0 45	9 51	10 18	21 7 10	2 54	10 38				
30	Th	Sun sets at Edinburgh 8h. 45m.	3 48	12 3	13 8	18	2 55	11 57	8 48	●	1 13	1 40	10 44	11 10	26 6 52	2 36	10 20				
															Uranus.	1 3 31	11 30 M	7 29			
																6 3 13	11 12	7 11			
																11 2 54	10 54	6 54			
																16 2 35	10 34	6 35			
															21 2 17	10 17	6 17				
															26 1 57	9 59	5 59				





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# THE ILLUSTRATED LONDON ALMANACK FOR 1859.

## JUNE.

THE SUN is in the sign of Gemini until 11h. 58m. P.M. of June 21st, when it passes into that of Cancer, and the summer quarter commences.

The Moon is near Mars on the morning of the 2nd, near Jupiter on the afternoon of the 2nd, near Saturn on the morning of the 5th, near Uranus on the morning of the 28th, and near Venus on the same evening; near Jupiter on the morning of the 30th, and near Mars and Mercury on the same night and the following morning. It is at its shortest distance from the Earth at noon of the 3rd, and at its greatest distance at 5 A.M. of the 19th.

New Moon occurs at 10 minutes past 7 on the morning of the 1st.	
First Quarter " 48 " 10 on the evening of the 7th.	
Full Moon " 18 " 10 on the morning of the 15th.	
Last Quarter " 32 " 2 on the afternoon of the 23rd.	
New Moon " 41 " 2 on the afternoon of the 30th.	

MERCURY is in the constellation of Aries at the beginning of the month, in that of Taurus at the middle, and in that of Gemini at the end of June. It is close to Uranus on the morning of the 10th, in perihelion on the afternoon of the 20th, in superior conjunction to the Sun on the morning of the 23rd, close to Jupiter on the morning of the 24th, close to Mars on the evening of the 28th, and again near the Moon on June 30th. It is most favourably situated for observation during the mornings at the beginning of the month, but is afterwards too close to the Sun and too near superior conjunction to be visible.

VENUS is favourably situated for observation, but is becoming smaller and fainter, the diameter now being less than twelve seconds of arc, and, although it rises before the Sun, its distinctive character of the morning star has now almost entirely disappeared. It is near Uranus on the evening of the 22nd, and about six degrees south of the Moon on the evening of the 28th. It is in the constellation of Aries in the beginning, and in that of Taurus at the middle and end of the month.



STARS SURROUNDING ARCTURUS.

MARS is now no longer visible, from its close proximity to the Sun and its distance from the Earth. It is about three degrees and a half south of the Moon on the morning of the 2nd, a degree north of Jupiter on the afternoon of the 7th, and about two degrees south of the Moon at midnight of the 30th. The dimensions of its disc are now nearly at the minimum. It is in the constellation of Taurus at the beginning of the month, and in that of Gemini at the middle and end of the month.

JUPITER is now almost lost in the rays of the Sun. The satellites are invisible from the 31st of May to the 21st of July, when Jupiter will again be visible in the morning twilight. It is in the constellation of Taurus until June 5th, when it passes into that of Gemini. It is four degrees and a quarter south of the Moon on June 2nd, in conjunction with the Sun at 6 P.M. of the 25th, and four degrees south of the Moon on the morning of the 30th.

SATURN may now be seen near the north-west horizon shortly after the Sun has set, and is becoming more and more unfavourably situated for observation, as the twilight is now too strong for distinct vision. M. Secchi found, however, that the dusky and interior ring of Saturn was visible immediately after sunset; and it would be curious to notice the effect of the strong twilight upon its colour and contour, and to see whether it preserves the same breadth, and is equally distinct at all its parts. The ratio of the greatest and least breadth of the ring at the middle of the month is, roughly, as 12 to 33. It remains in the constellation of Cancer throughout the month.

URANUS is about five degrees south of the Moon shortly before noon of the 28th, and remains in the constellation of Taurus throughout the month.

The brightest star in the southern sky during the evenings of June is that of ALPHA BOOTIS, or Arcturus, one of the more deeply-tinted stars, having the same ruddy tint as Alpha Orionis, Aldebaran, Alpha Herculis, Antares, and others of the brighter stars, and in striking contrast with the whiteness of Alpha Lyrae, Spica Virginis, Regulus, and others, which are now visible. In the immediate neighbourhood of Arcturus the sky is dotted with a profusion of small stars, which give it almost as rich an appearance as the part between Beta and Zeta Tauri, or the portions surrounding the Lyra, or the Sword Handle of Orion; but which is distinct from the groups of the Pleiades, or the Praesepe in Cancer.

Sometimes very cool and cheerless weather occurs in this month, though not particularly wet; as in June, 1841, when the mean temperature of eight consecutive days during the first half of the month did not exceed 49 degrees, that of the whole month being 4 degrees below the average. June, 1843, was equally cold, with a similarly low mean temperature.

## RECENT HOT SUMMERS.

MR. GLAISHER has collected from the tabulated records of the summers from 1855 to 1858 facts of interest. Following the tabulated facts and miscellaneous notes for each year is a brief summary of the character of its produce, together with a table of meteorological results for the same period of time, and for the same extent of country—beginning with the year 1855, remarkable for the severity of its winter and the peculiar character of the phenomena recorded in connection with it, and ending with the year 1857, equally remarkable for the excessive warmth of its fine and long-continued summer.

After referring to the meteorology of 1855, it is shown that the severe weather which set in about the middle of January caused the freezing of rivers which, within the memory of observers, had not been frozen before. At Nottingham and Gainsborough the Trent was frozen over during the whole of February, the average thickness of the ice for some part of the time being seven inches; and the Dee was crossed by foot-passengers on February 27, the ice being then six inches thick. The river was not clear of ice until March 4. Passing by the various notices of snow crystals, peculiar kinds of snow, viscid rain, the sheathing of the trees with ice, which crackled and fell, exhibiting with the accuracy of a photograph the tracery of the leaf or bark or substance it had adhered to, Mr. Glaisher passed quickly on to the records applying to the months of spring, when vegetation long retarded received an impulse from the more genial weather which succeeded to the frosts of January and February, and were rather mitigated than subdued towards the end of March.

Throughout the opening of the year, vegetation was reported to be from three to four weeks backward, but not unhealthy; on the contrary, all crops looked promising and well, and the snow, which lay for many weeks continuously on the ground, had served to protect the vegetation that it covered, and which, by the beginning of June, was reported at many places to be more than usually luxuriant.

The winter was remarkable for the number of wild fowl and rare birds which visited the coast, implying that the severity of the weather was extensively felt.

On the night of May 31 a very severe frost occurred, and caused the destruction of a large number of swallows. The great loss of life occasioned to these birds, which were picked up dead in numbers on the morning of June 1, is mentioned at several places.

The same frost likewise made great destruction among the sheep. At Grantham some farmers lost as many as seventy on the night of the 31st, and at Belvoir the loss to the district was estimated at above 1000 of newly-shorn sheep.

Near Maidstone, in Kent, Dr. Fielding remarks—"The snow which fell in January has remained in pits and deep hollows until the middle of this month (June); on the 1st a large dishful was shown to me—the man stating there were cartloads of it in a chalk-pit near."

Grass and cereal crops were luxuriant and abundant; the fruit crop was plentiful, and hops equally so. In many parts of the country the produce of the year is reported to have been above the average in quantity and quality.

The potato disease made its appearance late in the season, but was not unusually severe. This disease would appear, unfortunately, to be established and inseparable from the growth and cultivation of the plant, as shown in the continuous mention of it year by year since the disease was first introduced.

About the end of September the prevalence of countless multitudes of small flies, or aphides, is reported at many places in different parts of the country. At some places the visitation is recorded on simultaneous days, in others following in a kind of sequence of dates, as if the objectionable visitants had travelled along a certain but irregular line of march.

The swallows remained later than usual, and were observed at Uckfield, in Sussex, and other counties towards the end of November and during the first week in December. The time of leaf-fall was about an average, but the autumn tints were less varied and conspicuous than usual. It is worthy of remark that in the early part of the winter following the autumn of this very severe year is recorded an extraordinary quantity of sloe berries, hips, haws, crabs, and hawthorn bushes quite red with fruit. It is a significant fact in relation to the character of the year that the spaces usually devoted to the entry of facts in connection with vegetation and the produce of the seasons are principally occupied by miscellaneous meteorological notes, which throughout the year usurp an unusual degree of prominence.

The year 1856 was not distinguished by any very remarkable characteristic, and vegetation and all periodical phenomena may be said to have regained their averages. In contrast to the preceding year a great paucity of birds was remarked, not only of the migratory species but of the common native birds; and springs and wells, that were so low in 1855 that advantage was generally taken to clean the latter, were this year, in the month of January, from the heavy rains, full to overflowing. Vegetation and the cereal crops were abundant and very luxuriant, in some places above the average, but the fruit crop generally was a failure, particularly that of apples and pears, which failed universally in England and Scotland.

The smaller sorts of fruits, currants and gooseberries in particular, were devastated by the ravages of a caterpillar, which laid bare the bushes as in winter, to the great injury of the fruit, which, exposed to the direct action of the sun, fermented, became acid and shrivelled, and wholly unfit for use. The potato disease manifested itself early at many places, and with greater severity than ever before known. The failure of the fruit crop, and the prevalence and intensity of the potato disease, are the leading facts in connection with the produce of the year.

In 1857, for the first three months, there is a paucity of notes concerning both the meteorology and the productions of the soil. In April and May vegetation was somewhat backward; but towards the end of May it received an impulse from the return of more genial weather, and made rapid progress. During the summer severe storms were prevalent; but the season was remarkable for its dryness, and the cereal crops, in some places, were thin in consequence. Fruit, and in fact nearly all the produce of the year, were good and abundant, particularly the crops, which were generally equal to, and in many cases far exceeded, the average. In Scotland vegetation was reported to be three weeks earlier in usual. The months of July and August were intensely hot; and very unusually severe storms of thunder, of almost tropical character, were experienced. The heavy rains are a conspicuous feature of the autumn months of this year.

But the fine summer and autumn were prolonged far into the winter; and the mild weather which continued up to the end of December will be fresh in the recollection of every one.





JULY.

Day of Month.	Day of Week.	ANNIVERSARIES, FESTIVALS, REMARKABLE EVENTS.	SUN.				MOON.				HIGH WATER AT				PLANETS.			
			Rises at Lon- don.	SOUTH.	Sets at Lon- don.	Rises at Lon- don.	SOUTH.	Sets at Lon- don.	AGE.	LONDON BRIDGE.	LIVERPOOL DOCK.	Rise.	South.	Set.	Day of M.	Rise.	South.	Set.
1	F	Sun rises at Dublin 3h. 38m.	3 49	12 3 25	8 18	4 17	1 2	9 26	1	2 6	2 32	11 36	—	—	Mercury.	1 4 26 M	0 47 A	9 7 A
2	S	Visita. B.V. Mary	3 49	12 3 37	8 18	5 49	2 2	9 53	2	2 58	3 23	0 1	0 26	—	Mercury.	6 4 50	1 9	9 17
3	S	2ND S. aft. TRIN.	3 50	12 3 48	8 17	7 22	2 58	10 13	3	3 48	4 13	0 51	1 15	—	Mercury.	11 5 32	1 26	9 18
4	M	Sun sets at Dublin 8h. 27m.	3 51	12 3 59	8 17	8 53	3 50	10 28	4	4 37	5 0	1 38	2 2	—	Mercury.	16 6 2	1 39	9 14
5	Tu	Cambridge Commencement and Oxford Act	3 51	12 4 10	8 16	10 18	4 38	10 41	5	5 24	5 49	2 27	2 52	—	Mercury.	21 6 28	1 47	9 4
6	W	Thomas à Becket	3 52	12 4 20	8 16	11 40	5 25	10 55	6	6 14	6 39	3 17	3 42	—	Mercury.	26 6 48	1 51	8 52
7	Th	Fire Insurance due	3 53	12 4 30	8 15	Aftern.	6 11	11 9	D	7 4	7 29	4 7	4 33	—	Venus.	1 2 16	10 21 M	6 27
8	F	Cambridge Easter Term ends	3 54	12 4 40	8 15	2 22	6 59	11 26	8	7 55	8 22	5 0	5 30	—	Venus.	6 2 16	10 27	6 39
9	S	Oxford Trinity Term ends	3 55	12 4 49	8 14	3 41	7 48	11 48	9	8 52	9 23	6 1	6 33	—	Venus.	11 2 21	10 34	6 48
10	S	3RD S. aft. TRIN.	3 56	12 4 58	8 13	4 56	8 39	Morn.	10	9 55	10 30	7 8	7 44	—	Venus.	16 2 26	10 41	6 56
11	M	Sun rises at Edinburgh 3h. 32m.	3 57	12 5 6	8 13	6 5	9 32	0 16	11	11 6	11 43	8 21	8 54	—	Venus.	21 2 33	10 47	7 1
12	Tu	Allied Army evacuated the Crimea, 1856	3 58	12 5 14	8 12	7 4	10 24	0 55	12	—	0 16	9 24	9 49	—	Venus.	26 2 42	10 54	7 5
13	W	Sun rises at Dublin 3h. 51m.	3 59	12 5 22	8 11	7 49	11 16	1 46	13	0 46	1 11	10 13	10 36	—	Mars.	1 4 12	0 30 A	8 48
14	Th	Sun sets at Dublin 8h. 19m.	4 0	12 5 29	8 10	8 22	Morn.	2 48	14	1 35	1 58	10 56	11 16	—	Mars.	6 4 10	0 25	8 40
15	F	St. Swithin	4 1	12 5 35	8 9	9 46	0 6	3 57	O	2 18	2 38	11 35	11 54	—	Mars.	11 4 7	0 19	8 31
16	S	Length of day 16h. 16m.	4 2	12 5 41	8 8	9 5	0 53	5 9	16	2 57	3 16	—	0 11	—	Mars.	16 4 5	0 13	8 21
17	S	4TH S. aft. TRIN	4 4	12 5 47	8 7	9 19	1 37	6 20	17	3 33	3 49	0 27	0 43	—	Mars.	21 4 3	0 7	8 11
18	M	French Revolution, 1789.	4 5	12 5 52	8 6	9 31	2 19	7 32	18	4 5	4 20	0 58	1 14	—	Mars.	26 4 0	0 0	8 0
19	Tu	Havelock defeated Nana Sahib at Bithoor, 1857	4 6	12 5 56	8 5	9 42	2 59	8 41	19	4 36	4 52	1 30	1 46	—	Jupiter.	1 3 29	11 45 M	8 1
20	W	Margaret	4 7	12 6 0	8 4	9 53	3 49	9 51	20	5 8	5 25	2 3	2 20	—	Jupiter.	6 3 15	11 31	7 47
21	Th	Sun rises at Edinburgh 3h. 40m.	4 9	12 6 3	8 3	10 5	4 19	11 3	21	5 42	5 59	2 37	2 55	—	Jupiter.	11 3 1	11 16	7 31
22	F	Sun sets at Edinburgh 8h. 23m.	4 10	12 6 7	8 2	10 19	5 1	Aftern.	22	6 17	6 36	3 14	3 35	—	Jupiter.	16 2 46	11 1	7 16
23	S	Mary Magdalene	4 11	12 6 9	8 0	10 37	5 46	1 34	23	6 57	7 19	3 57	4 21	—	Jupiter.	21 2 32	10 46	7 0
24	S	5TH S. aft. TRIN.	4 13	12 6 11	7 59	11 2	6 36	2 56	24	7 43	8 10	4 48	5 21	—	Jupiter.	26 2 17	10 31	6 45
25	M	Satellites of Jupiter now visible.	4 14	12 6 12	7 58	11 38	7 31	4 17	25	8 43	9 21	5 59	6 38	—	Saturn.	1 6 37	2 19 A	10 1
26	Tu	St. Anne	4 15	12 6 13	7 56	Morn.	8 31	5 32	26	10 0	10 40	7 18	7 57	—	Saturn.	6 6 21	2 2	9 43
27	W	French Revolution com., 1830	4 17	12 6 13	7 55	0 32	9 35	6 35	27	11 19	11 57	8 35	9 10	—	Saturn.	11 6 4	1 45	9 24
28	Th	Twilight ends 11h. 0m.	4 18	12 6 13	7 53	1 44	10 40	7 20	28	—	0 32	9 41	10 10	—	Saturn.	16 5 48	1 27	9 6
29	F	Sun rises at Dublin 4h. 14m.	4 19	12 6 11	7 52	3 12	11 43	7 53	29	1 3	1 32	10 37	11 2	—	Saturn.	21 5 32	1 10	8 48
30	S	Sun sets at Dublin 7h. 57m.	4 21	12 6 10	7 50	4 47	Aftern.	8 15	1	1 59	2 24	11 27	11 51	—	Saturn.	26 5 15	0 53	8 31
31	S	6TH S. aft. TRIN.	4 23	12 6 7	7 48	6 21	1 37	8 32	2	2 49	3 13	—	0 14	—	Uranus.	1 1 39	9 40 M	5 41
															Uranus.	6 1 20	9 21	5 22
															Uranus.	11 1 0	9 2	5 4
															Uranus.	16 0 42	8 44	4 46
															Uranus.	21 0 23	8 25	4 27
															Uranus.	26 0 4	8 6	4 8





TYROLESE CHAMOIS-HUNTER. PAINTED BY CARL HAAG.—FROM "THE ILLUSTRATED LONDON NEWS"



## BRITISH BIRDS OF THE SEASON.

JULY AND AUGUST.

With light and heat refulgent July succeeds to June. The task of the mower has ended, and the rye is ready for the sickle. Oppressed by the heat, the cattle seek the shade,—

on the grassy bank  
Some ruminating lie, while others stand  
Half in the flood, and often bending sip  
The circling surface.

The gadfly is abroad, the terror of the herd. Swarms of wasps invade the garden and the orchard, tempted by the ripe and luscious produce of the plum-tree—for the wasp is omnivorous, devouring with equal relish flesh and the saccharine pulp of fruits, sugar itself being its especial dainty. Sultry is the midday—

the sun has drunk  
The dew that lay upon the morning grass;  
There is no rustling in the lofty elm.  
All is silent, save the faint  
And interrupted murmur of the bee  
Settling on the sick flowers, and then again  
Instantly on the wing.—BAYANT.

Myriads of butterflies are flitting around—ever settling, ever rising, still on ever-moving wing pursuing their wavering and unsteady course. The great tortoiseshell (*Vanessa Polychloros*), the peacock's-eye (*Vanessa Io*), the admiral (*Vanessa Atalanta*), heath butterflies of sober tints (*Hipparchia*), azure-blue butterflies (*Polyommatus*), and marbled fritillaries (*Metitæa*, and *Argynnis*)—these and others are dancing along the shady lane, or disporting on the furze-clad common, where every spiny bush presents us with the white gauzy pavilion of one of the ground-haunting spiders.

The nesting-time of most birds is over. The young are fledged, and in their immature livery. The sparrow porchance, and the house martin, may be engaged in the work of incubation, for they rear a second and a third brood; and it not unfrequently happens that some of the late-hatched nestlings of the latter are too weak on the wing to accompany the vast flocks on their departure from our island in October. That most of these perish we cannot doubt; yet some few may weather through the months of winter. The house martin breeds the latest of all those of the swallow tribe which visit us. Gilbert White remarks that "they have sometimes nestlings on to the 21st of October, and are never without unfledged young as late as Michaelmas." Again he writes—"Young broods of swallows began to appear this year on July the 11th, and young martins (*Hirundines urticae*) were then fledged in their nests. Both species will breed again once; for I see by my "Fauna" of last year that young broods came forth so late as September the 13th. Are not these late hatchlings more in favour of hiding than migration? Nay, some martins remained in their nests as late as September the 29th, and yet they totally disappeared with us by the 5th of October. To this subject we shall have occasion to revert hereafter.

We have said that the nesting-time of most of our birds is over. To the exceptions already enumerated others may, however, be added. Among those which rear two broods we may mention the skylark, whose second brood is fledged by the end of July or early in August, its song being continuous from spring to the latter part of autumn. There is another bird, very local in its distribution, the nests of which we have seen in July—we allude to the Dartford warbler (*Melospiza provincialis*, Leach). This reclusive species seems to be confined to our southern counties, where it tenants furze-clad heaths, building its nest in the centre of the most dense and impenetrable furze-bush. It is far from being uncommon on Boxley-heath and on Chislehurst-heath, as we can personally testify. It has been found in Devonshire and Cornwall. Its first discovery as a British bird is due to Dr. Latham during his residence at Eltham; and recently circumstances have led us particularly to notice it. Twice in the year at least does the thrush breed, and so also does the blackbird, perhaps also the ring ouzel, its relative, which, contrary to the habits of our migratory thrushes—as the redwing and fieldfare, winter visitors—arrives in our island in spring. Well are we acquainted with this blackbird, with its snowy gorget. It is common throughout the bleak and barren hills of the Peak, where, perched on some jutting stone, it utters a short sweet warble. There, too, breeds the clicking stonechat, unlike the wheatear and the whinchat, a permanent resident; and there, too, along the trout-streams, winding through dale and glen, may we see the dipper or water ouzel (*Cinclus aquaticus*). We know him at once by his snow-white breast, contrasting admirably with the deep blackish-brown of the rest of his plumage. There he stands, perched upon a rugged jutting stone, in the middle of the dashing stream. Ever and anon he depresses his head, and elevates his short tail with a smart and lively action. Suddenly he darts beneath the water, to reappear at a considerable distance; emerging, he settles on some low crag, around which the water boils in tumult, and pours forth a low but pleasing song. We have found its nest in July; but to find it is no easy matter, so artfully is it concealed and adapted to the chosen site—it may be in the fissure of a craggy mass of stone overhanging the water; we have found it between the green, damp stones of a rude dilapidated bridge, and observed it (by watching the parent birds) in a crevice on the face of a low rock, with a small torrent of water forming a cascade, like a screen, before it. The nest is of large size, and domed, with a lateral entrance. It is composed of mosses and lichens, and is lined with dry leaves and a few vegetable fibres. The dipper breeds twice in the season, perhaps even thrice. The first brood is fledged in May. It is a remarkable fact, to the truth of which we can testify, that each pair of dippers occupies exclusively a certain range along the river, beyond which, into the territory of another pair, they do not appear to intrude. Nowhere are they more common than along the rock-belted Wye, near Buxton, in Derbyshire.

The ringdove, or cushat, is now rearing a second brood; so, too, is the stockdove, as it is erroneously called, for the rockdove (*Columba livia*) is the origin of our domestic varieties. The two former are woodland birds; the latter gives preference to precipices along the seacoast, to ruinous towers, and old church steeples. It haunts in myriads the wild, beetling fowers of the Orkneys, congregating in caverns. Vast flocks nestle on the rocks and in the caverns of Gibraltar, and also those of the island of Tenerife. It is dispersed over Europe, Northern Africa, and Asia. We must not quite forget the turtle. In May its voice was first heard, and now its second pair of younglings are nearly ready to leave the nest. In Kent and Essex this beautiful migrating dove is very common, tenanting woods and thickets; but it is rare in our midland and northern counties. We have found its nest on the stump of a pollard-oak densely over-canopied by foliage.

But see! the white waterlily (*Nymphaea alba*) opens above the surface of the pool, in the midst of a prairie of floating varnished leaves, and hard by blossoms its yellow relative (*Nuphar lutea*), while the meadowsweet (*Spiræa ulmaria*), the "reine des prés" of the French (queen of the meads), intermingles with the tangled herbage of the humid bank, diffusing the delicate but dangerous odour of prussic acid. Here in embowered pools and secluded nooks lurks the waterhen, or the coot, with its train of nestlings, which have scarcely yet thrown off their first downy covering; here, too, we may surprise the water-rail and the dabchick—for in such spots do these birds lurk and breed—lovers of quiet seclusion.

The pheasant is followed in the preserve by her active brood, and young coveys of partridges are crouching in corn and clover field under guard of their watchful parents.

But away to the moorlands! The heath is in bloom: it is a glorious sight—grandly swell the purple mountains, and dark are the pinewoods of glen and gorge, where the blackcock haunts the deep recess. The young, now strong on the wing, are still under the guidance of their female parent, for the polygamous males leave all the care of incubation and rearing to the females. With them they visit bilberry tracks, and corn lands reclaimed from the wild waste of the heath, and interspersed with copes of birch and alder, which afford them refuge when alarmed.

Very different in its habits is the red grouse, bird of the heath-clad moorland; and again different from both is the ptarmigan, which tenants the rocky, sterile summits of the mist-clad mountain, Ben Nevis, towering above the valley of Lochaber and the wide range of Rannoch Moor or Cairngorm, overlooking the pine forests of Strathspey. Such are its haunts, hardly weatherer of the tempest! which drives even the strong-winged eagle from his onward course. There crouch coveys amidst fragments of rock and boulders, feeding on the fruits and shoots of the cranberry, the cloudberry, and other Alpine plants, burrowing during winter under the snow.

Turn we to our Plate—a small pack of red grouse, cowering in their heathery covert. Beautiful is the red grouse, with its many-tinted plumage and its furry feet; bright is its scarlet eyecomb, especially conspicuous in the male when he mates in early spring; for, unlike the blackcock, the red grouse (like the ptarmigan and the partridge) is strictly monogamous.

Already are the young birds strong upon the wing. Their home is on the hillside, amidst the tall, wiry heather. They affect neither the recesses of the pine forest, nor "the difficult summit of the iced mountain-top." More congenial to them is the boldly-swelling moorland, where grow the arbut and the bilberry, which afford them food. In spring the tender shoots of these plants and of the heather are sufficient. In autumn they visit the adjacent stubble-fields, or patches of rye or oats, where cultivation encroaches upon the moorland borders. Social is the red grouse in its habits, and in July and August friendly families often unite their broods, so as to form large packs, which, unless scattered asunder by the sportsman, keep company till the pairing-time in spring. But, alas, everywhere does man interfere with the polity of nature! He is the constrainer of the land and the sea, and subjects the animal world to his dominion. Such is his destiny upon earth.

There is another point of peculiar interest which attaches to the red grouse, and which we ought not to pass over in silence. Of the apocryphal we say nothing, except that it has been successfully introduced into the pine forests of Scotland, and has been there shot for the Royal table.

The ptarmigan of the bleak mountain range (*Lagopus mutus*) is found in Norway, Sweden, and other portions of the higher latitudes of Continental Europe, as well as in Scotland.

The black grouse, or black cock, is a native of the forests of Norway, Sweden, Russia, France, and the Tyrol.

But the red grouse has been long deemed an exclusive tenant of the British islands. The sportsman prides himself on the assumed fact, and the British ornithologist exultingly adds the weight of his opinion. Foreign naturalists, moreover, concur with their English collaborators, and deem its presence an ornament of the museum. The red grouse, therefore, may be looked upon as a "bird of mark," and, independently of every other consideration, as worthy the protection which is bestowed upon it. Yet so great is the slaughter of the red grouse during the sporting season that we might be tempted to fear for its gradual diminution, or even its ultimate extirpation. No doubt, some preserves are greatly thinned; but a favourable breeding season and well-timed attention will generally be found to restore the balance. It is, then, for a selfish sake that man pays attention to the preservation of the red grouse, and throws a legal protection around it; yet we should be very sorry to say that all patriotic feeling was absent.

But July has passed into August—the "barn month" of our Anglo-Saxon forefathers—the month of reaping and gathering into barns. The harvest is already ripe for the sickle, and the reapers are in the field. The broad moon, like a golden shield, gleams nightly over the wide tracts of wheat, the choicest gift of Ceres to man. Forth come the creeping things that love the night. At such an hour oft have we met the trampling hedgehog; watched the water-rat ploughing through the duckweed-meadow (strange and curious plant), covering the surface of pond or drainage-course. At such an hour have we marked the great-eared bat, flitting round oak, sycamore, and lime-tree, while moths glanced to and fro, and "the shard-borne beetle" wheeled "his droning flight." The mousing owl, on noiseless wing, has passed us—the wavering goatsucker has glanced by.

But it is August. Away to the moorlands hurries the ardent sportsman, with his guns and his setters. Woo to the red grouse! We left them in July happy in each other's society, little dreaming that evil days were at hand. So dreams man in his hours of prosperity, "knowing not what a day may bring forth." Confident at first, the packs are thinned by the sharp shot dealt forth with unerring aim; and then fortunate for them is a day of storm and sleet, for on that day they have an intermission. Still the work of slaughter proceeds, and the thinned packs become wild and suspicious. More toilsome, too, becomes the work of the sportsman—he sees his marked birds take wing ere he can approach, and dash in terror from the mountain side across glade or glen to the side of a mountain far away—behind him, beyond him, to his left, or to his right. Well it is so; otherwise, protected as they are, our red grouse would soon be on the verge of extermination. As it is, when we look at the display of these birds in the poulterers' shops in London (to say nothing of hundreds elsewhere disposed off), we scarcely help wondering whence they came.

So passes July, so passes August—decked alike with the treasures of Flora and Ceres. September is at hand.



# THE ILLUSTRATED LONDON ALMANACK FOR 1859.

## JULY.

THE SUN is in the sign of Cancer until 10h. 50m. A.M. of the 23rd, when it passes into that of Leo. It is north of the Equator during this month, and is at its greatest distance from the Earth at 1h. 26m. P.M. of the 2nd.

THE MOON is near Saturn on the evening of July 2nd, near Uranus on the morning of the 25th, near Jupiter on the morning of the 28th, and near Venus on the same evening; near Mars on the evening of the 29th, near Saturn on the morning of the 30th, and near Mercury on the evening of the 31st. It is at its shortest distance from the Earth on the afternoon of July 1, at its greatest distance on the afternoon of the 16th, and again at its least distance at midnight of the 29th.

First Quarter occurs at 54 minutes past 5 on the morning of the 7th.  
Full Moon " 53 " midnight of the 14th.  
Last Quarter " 26 " 3 on the morning of the 23rd.  
New Moon " 44 " 9 on the evening of the 29th.

MERCURY is in the constellation of Gemini at the beginning of the month, in that of Cancer at the middle, and in that of Leo at the end of the month. It is well situated for observation during the evenings. It is close to Saturn on the morning of the 14th, close to Regulus (Alpha Leonis) on the morning of the 24th, very close to the Moon at 8 P.M. of the 31st (being then only four minutes north of it), and at its greatest easterly elongation on the morning of August 1.

VENUS is in the constellation of Taurus at the beginning, and in that of Gemini at the middle and end of the month. The disc is now almost quite round, and the diameter is between ten and eleven seconds of arc. Otherwise it is well situated for observation, although it is approaching rapidly towards the Sun. At 3h. 45m. A.M. of the 21st it is very close to Jupiter, the two planets being less than a minute apart. On the afternoon of the 28th it is about two degrees and a half south of the Moon.

MARS is in conjunction with the Sun on the afternoon of the 21st, and arrives at its greatest distance from the Earth at the end of the month, when its diameter only subtends an angle of three seconds and a half. It is now invisible. It is half a degree south of the Moon on the afternoon of the 29th. It is in the constellation of Gemini at the beginning and middle of the month, and in that of Cancer at the end of the month.

JUPITER remains invisible till the end of the month, when it will be seen in the north-east in the early morning. It is three degrees and a half south of the Moon on the morning of the 28th. It remains in the constellation of Gemini throughout the month.

SATURN is badly situated for observation throughout the month, as it is too near the Sun, and sets shortly after. The ratio of the minor and major axes remain nearly the same as during last month. It is extremely close to the Moon at 7h. 22m. P.M. of July 2nd, being then only one minute of arc south of the latter. Shortly before noon of the 30th it is again close to the Moon, being then twenty-three minutes north of it. It remains in the constellation of Cancer throughout this month.



STARS SURROUNDING ALPHA LYRÆ.

URANUS is five degrees and a quarter south of the Moon at 11 P.M. of the 25th, and remains the constellation of Taurus throughout the month.

THE LYRE is a well-known and compact constellation in the northern heavens, and is very rich, both in the brighter as well as in the telescopic classes of stars; and the portion bounded by Eta, Theta, Gamma, Alpha, and Epsilon Lyrae is especially rich in the latter respect, and presents a fine aspect when viewed by a small telescope, the Milky Way being here very bright. It contains many objects of interest, among the foremost of which we may place the star Alpha or Lucida Lyrae, one of the brightest in the heavens. This star is double, having a very faint companion of the fifteenth magnitude. The star Beta Lyrae is a coarse quadruple one, and the four components can be seen at the same time in the field of the telescope, and are respectively of the second, eighth, ninth, and tenth magnitudes. The duplicity of the stars Zeta and Eta is easily recognised. The former is a fine double star, the brighter star, of the third magnitude, being white, the smaller (of the fourth) blue. Beta Lyrae is a variable star, changing from the third to the fifth magnitude in six days and a half.

The return of the various planets to nearly the same point in the sky is an interesting spectacle which but seldom occurs. The "great conjunctions," as they are termed, or the return of many planets to the same part of the heavens, require intervals of time which are immense, and it would be useless, and even impossible, to calculate them exactly, in consequence of the derangements which attraction produces in the planetary motions. But there are frequently conjunctions of the planets amongst

themselves: the great conjunction of Jupiter and Saturn may be cited as an instance, which takes place towards the equinoctial point. It happened at 6 deg. of Aries, the 22nd of May, 1702, the two planets being separated by 1 deg. 4 min.

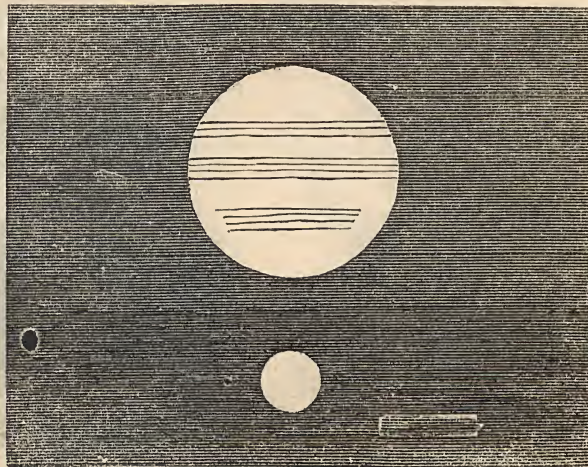
On the 11th of February, 1524, Venus, Jupiter, Mars, and Saturn were very close to each other, and Mercury only 16 deg. apart.

On Nov. 11, 1544, Venus, Jupiter, Mercury, and Saturn were inclosed in a space of 10 deg.

On March 17, 1725, Venus, Jupiter, Mars, and Mercury appeared together in the field of view of the telescope.

On Dec. 23, 1769, Venus, Jupiter, and Mars were very close to each other. Mercury and the Moon, on Dec. 25, were also very near.

In the years 1507, 1511, 1552, 1564, 1568, 1620, 1624, 1664, 1669, 1610, 1709, and 1765, the three most brilliant planets—Venus, Jupiter, and Mars—were very close to each other.



REMARKABLE CONJUNCTION OF VENUS AND JUPITER, JULY 21, 3H. 44M. A.M.

At the end of one hundred and fifty-nine years, Mars, Jupiter, and Saturn return nearly to the same part of the sky.

The Chinese books speak of an ancient conjunction of all the planets, which is ordinarily placed at the year 2449 before the Christian era. Bailly finds that on February 28, 2449 B.C., there was really a conjunction, or apparent proximity, of the planets. At least, Venus was in conjunction with the Sun, Saturn with Mars, and Jupiter with Mercury, all four being in a space of 16 or 17 deg.

The conjunctions of Jupiter and Venus happen every year; but they form a curious spectacle for the public when they occur during the evening, at the time of the greatest digressions of Venus, as on July 21, 1778, and May 2, 1788.

A very remarkable approach of those two planets (Jupiter and Venus) takes place on July 21 of the present year, early in the morning, and which will be well seen in the British Islands. The distances of the central points of the discs of the two planets at the following times will be seen from the annexed table:—

July 21, 2h. 47m. A.M. ..	2 min. 26 sec.	July 21, 3h. 44m. A.M. ..	0 min. 31 sec.
" 2 57 " .. 2	1	" 3 45 " .. 0	31
" 3 7 " .. 1	37	" 3 46 " .. 0	31
" 3 17 " .. 1	14	" 3 47 " .. 0	31
" 3 27 " .. 0	52	" 3 57 " .. 0	45
" 3 37 " .. 0	35	" 4 7 " .. 1	5
" 3 42 " .. 0	31	" 4 37 " .. 2	16
" 3 43 " .. 0	31	" 5 7 " .. 3	20

The least distance will consequently take place at 3h. 44m. A.M. of the 21st, at which times the edges of the two planets will be separated by a distance of only thirteen seconds—a little more than the breadth of the disc of Venus, but less than one-half that of the diameter of Jupiter. This remarkable sight will, therefore, be seen before sunrise in the British Islands; and to the naked eye, at the moment of the nearest approach, the two planets will appear as one star.

During the month of July the weather is everything that can be desired in regard to warm temperature, and the northern part of the Earth is now fairly launched into the rays of the Sun, and the time of southerly winds commences. July is the hottest month of the year, the mean temperature being 62.2 degrees, or about three degrees higher than that of June. The mean daily maximum is 70.8 degrees; the mean minimum of the night, 53.2 degrees. The nights are, consequently, warmer during this month (excepting August) than on any other throughout the year, and the increase in the mean temperature is mainly derived from this circumstance. The mean range of the thermometer is from 80.6 degrees to 42.8 degrees. The highest recorded temperature is 93 degrees; the lowest, 61.4 degrees. The prevailing winds are from the N.W.; but the S. by W. are likewise considerable, especially in rainy seasons. When the weather is wet the wind is unsteady, and veers between the S. by W. and N. by W. quarters. The weather is frequently unsettled during this month, with much rain; and, with a falling barometer and a high temperature, thunderstorms may be expected.

The month of September "wavers between summer and autumn," but is still delightful, from the commingling of two such pleasant seasons. Occasionally the warm weather continues to the end of this month, and, in 1832, the thermometer rose above 70 degrees for six successive days during the last week. The mean temperature for this month is 56.9 degrees. The highest recorded is 80.1 degrees; the lowest, 28 degrees. The mean maximum temperature of the day is 65.2 degrees; the mean minimum, 49.4 degrees; and the mean range of the thermometer is from 74.5 to 36.4 degrees. Towards the end of the month the wind is generally very stormy from the southerly and westerly quarters.





Day of Month.	Day of Week.	ANNIVERSARIES, FESTIVALS, REMARKABLE EVENTS.	SUN.					MOON.					HIGH WATER AT				PLANETS.			
			Rises at London.		SETS at London.		AGE.	Rises at London.		SETS at London.		DYS.	LONDON BRIDGE		LIVERPOOL DOCK.		Day of M.	Rise.		Set.
			H. M.	H. M.	H. M.	H. M.		H. M.	H. M.	H. M.	H. M.		Morn.	Aftern.	Morn.	Aftern.		H. M.	H. M.	
1	M	Twilight ends 10h. 40m.	4 24	12 6	5 7	4 7	7 51	2 29	8 47	3	3 36	3 58	0 36	0 58			Mercury.	1 7 6 M	1 50 A	8 33 A
2	Tu	Day breaks 1h. 31m.	4 26	12 6	1 7	4 5	9 19	3 18	9 1	4	4 20	4 42	1 20	1 40			Mercury.	6 7 12	1 44	8 20
3	W	Sun rises at Dublin 4h. 20m.	4 27	12 5	5 5	7 44	10 43	4 6	9 16	5	5 2	5 23	2 1	2 22			Mercury.	11 7 9	1 32	7 54
4	Th	Sun sets at Dublin 7h. 48m.	4 29	12 5	5 2	7 42	Aftern.	4 55	9 31	6	5 44	6 6	2 44	3 5			Mercury.	16 6 55	1 13	7 31
5	F	Sun rises at Edinburgh 4h. 14m.	4 31	12 5	4 7	7 40	1 27	5 44	9 51	7	6 27	6 48	3 26	3 49			Mercury.	21 6 27	0 46	7 5
6	S	Emperor Napoleon visited England, 1857	4 32	12 5	4 1	7 38	2 45	6 35	10 18	8	7 11	7 36	4 14	4 42			Mercury.	26 5 45	0 12	6 40
7	S	7TH S. aft. TRIN.	4 33	12 5	3 4	7 36	3 58	7 28	10 54	9	8 4	8 37	5 15	5 53			Venus.	1 2 55	11 2 M	7 8
8	M	Tr. of our Lord	4 34	12 5	2 7	7 35	5 0	8 20	11 40	10	9 15	9 56	6 34	7 19			Venus.	6 3 8	11 8	7 7
9	Tu	Length of day 14h. 57m.	4 36	12 5	1 9	7 33	5 48	9 12	Morn.	11	10 41	11 22	8 0	8 37			Venus.	11 3 22	11 14	7 4
10	W	St. Lawrence	4 38	12 5	1 1	7 31	6 25	10 3	0 39	12	11 59	—	9 11	9 40			Venus.	16 3 37	11 20	7 1
11	Th	Dog days end	4 40	12 5	2 7	29	6 52	10 50	1 46	13	0 33	1 2	10 2	10 23			Venus.	21 3 52	11 25	6 57
12	F	Day breaks 2h 9m	4 41	12 4	5 2	27	7 12	11 35	2 57	14	1 24	1 45	10 43	11 1			Venus.	26 4 8	11 30	6 50
13	S	Twilight ends 9h. 54m.	4 43	12 4	4 2	25	7 27	Morn.	4 9	15	2 5	2 23	11 18	11 34			Mars.	1 4 0	11 53	7 46
14	S	8TH S. aft. TRIN.	4 44	12 4	3 1	24	7 40	0 18	5 21	16	2 40	2 56	11 49	—			Mars.	6 3 59	11 47	7 35
15	M	Sun rises at Dublin 4h. 41m.	4 46	12 4	2 0	22	7 51	0 59	6 32	17	3 11	3 26	0 4	0 18			Mars.	11 3 57	11 40	7 23
16	Tu	Sun sets at Dublin 7h. 25m.	4 48	12 4	8 7	20	8 1	1 39	7 42	18	3 40	3 54	0 32	0 46			Mars.	16 3 55	11 33	7 11
17	W	Duchess of Kent born, 1786	4 49	12 3	5 6	18	8 13	2 19	8 52	19	4 8	4 22	1 0	1 14			Mars.	21 3 55	11 26	6 57
18	Th	Queen Victoria visited Paris, 1855	4 51	12 3	4 3	16	8 26	3 0	10 52	20	4 36	4 51	1 29	1 45			Mars.	26 3 54	11 19	6 44
19	F	Sun sets at Edinburgh 7h. 26m.	4 52	12 3	3 0	14	8 41	3 43	11 20	21	5 7	5 24	2 2	2 19			Jupiter.	1 2 0	10 13	6 26
20	S	Length of day 14h. 18m.	4 54	12 3	1 6	12	9 3	4 30	Aftern.	22	5 41	5 58	2 36	2 56			Jupiter.	6 1 46	9 58	6 10
21	S	9TH S. aft. TRIN.	4 56	12 3	2 7	10	9 34	5 22	1 58	23	6 18	6 40	3 18	3 41			Jupiter.	11 1 31	9 43	5 55
22	M	Day breaks 2h. 40m.	4 57	12 2	4 8	7	10 18	6 18	3 14	24	7 3	7 30	4 8	4 42			Jupiter.	16 1 17	9 28	5 39
23	Tu	Twilight ends 9h. 21m.	4 59	12 2	3 3	7	11 19	7 18	4 21	25	8 4	8 45	5 23	6 9			Jupiter.	21 1 2	9 12	5 22
24	W	St. Bartholomew	5 0	12 2	1 7	3	Morn.	8 21	5 12	26	9 31	10 18	6 56	7 43			Jupiter.	26 0 48	8 57	5 6
25	Th	Indian Mutiny Fund commenced, 1857	5 2	12 2	1 7	1	0 40	9 24	5 49	27	11 5	11 48	8 26	9 1			Saturn.	1 2 0	10 10	6 26
26	F	Prince Albert born, 1819	5 3	12 1	4 5	6 59	2 9	10 24	6 15	28	—	0 23	9 32	10 0			Saturn.	6 4 40	0 15	7 50
27	S	Day's decrease 2h. 42m.	5 5	12 1	2 8	6 57	3 44	11 21	6 35	29	0 54	1 22	10 25	10 48			Saturn.	11 4 23	11 58 M	7 33
28	S	10TH S. aft. TRIN.	5 7	12 1	1 1	6 55	5 16	Aftern.	6 52	30	1 47	2 10	11 11	11 32			Saturn.	16 4 8	11 41	7 14
29	M	Gen. Sir C. Napier died, 1853	5 8	12 0	5 4	6 52	6 46	1 5	7 5	1	2 33	2 54	11 53	—			Saturn.	21 3 52	11 24	6 56
30	Tu	Louis Philippe died, 1850	5 10	12 0	3 6	6 50	8 15	1 55	7 20	2	3 15	3 35	0 13	0 33			Saturn.	26 3 36	11 7	6 38
31	W	Bunyan died, 1688	5 11	12 0	1 8	6 48	9 41	2 45	7 36	3	3 55	4 15	0 53	1 12			Uranus.	1 11 36 A	7 43	4 47
																	Uranus.	6 11 16	7 24	3 28
																	Uranus.	11 10 57	7 5	3 9
																	Uranus.	16 10 38	6 46	2 50
																	Uranus.	21 10 19	6 27	2 31
																	Uranus.	26 10 0	6 8	2 12





"CHARITY." PAINTED BY W. UNDERHILL.—FROM "THE ILLUSTRATED LONDON NEWS."



## THE ILLUSTRATED LONDON ALMANACK FOR 1859.

## POSTAL REGULATIONS.

## LETTERS AND NEWSPAPERS.

**INLAND LETTERS.**—All inland letters should be prepaid by an affixed stamp, otherwise double postage is charged. If the prepayment be insufficient, double the deficiency is charged. Letters weighing  $\frac{1}{2}$  oz. are charged 1d.; more than  $\frac{1}{2}$  oz. and not exceeding 1 oz., 2d.; and 2d. for every additional oz. or part thereof.

**FOREIGN AND COLONIAL LETTERS, &c.**—Although the prepayment of letters sent to the following countries be not compulsory, yet, if not prepaid, they are subject to the following increase of postage:—To or from places in Turkey, Egypt, and Syria, where France maintains post-offices, there will be charged a rate of 9d. per  $\frac{1}{2}$  oz., instead of 6d., the prepaid rate; to France, Sardinia, and Algeria, double postage; to Belgium (prepaid, 6d.), unpaid, if sent direct, 8d.; *via* France, 10d. According to the regulations of the German Customs Union, no letter exceeding fifty grammes (a little more than  $\frac{1}{2}$  oz.) in weight, and containing any other inclosure in paper, can be allowed to circulate by the post.

**NEWSPAPERS AND PERIODICALS** published at intervals not exceeding thirty days, and bearing an impressed newspaper stamp, may be transmitted and retransmitted through the Post Office to all parts of the United Kingdom under the following regulations:—If re-addressed, the previous address must be cut off (obliteration is not sufficient). Inattention to this will cause the publication to be dealt with as an unpaid letter. They must be posted within fifteen days from the date of issue, and folded so that the whole stamp or stamps are exposed to view, otherwise a postage of 1d. is charged in addition. There must be no inclosure, nor any mark or writing thereon except the address.

**NEWSPAPERS SENT ABROAD.**—As the usual impressed newspaper stamp counts for nothing, a postage-stamp must be affixed. When newspapers sent to British colonies have to pass through a foreign country they are liable (in addition to a postage of 1d.) to rates shown in the table of "Compulsory Payments." Unregistered publications, when sent to the colonies or abroad, are treated as book packets. Newspapers by private ships are charged 1d. Newspapers for India pay 2d. for every 4 oz.; above and not exceeding 8 oz., 3d.

## BOOK POST.

**INLAND.**—The following are the rates of postage:—Not exceeding 4 oz., 1d.; above 4 oz. and not exceeding 8 oz., 2d.; above 8 oz. and not exceeding 1 lb., 4d.—2d. being charged for every additional  $\frac{1}{2}$  lb. or part thereof. Postage must be prepaid in full by means of postage-stamps affixed outside the packet, which must be either without cover or open at the ends so as to admit of the inclosure being removed for examination. A book packet may contain any number of separate books or other publications, and printed matter of any kind, sheets of music or manuscripts, prints or maps, or any quantity of paper, parchment, or vellum; all legitimate binding, mounting or covering of a book, &c., or of a portion thereof, will be allowed, whether it be loose or attached; as also rollers, in the case of prints or maps; bookmarks (whether paper or otherwise) in the case of books; and, in short, whatever is necessary for the safe transmission of literary or artistic matter, or usually appertaining thereto; but no patterns, or books of patterns (unless these consist merely of paper), can be allowed. No book packet may contain any written letter closed or open, or any inclosure sealed or otherwise closed against inspection; nor must there be any letter, nor any communication of the nature of a letter, written in any such packet, or in or upon its cover. Entries, however, merely stating who sends the book, &c., or to whom it is given, are not regarded as a letter. No book packet must exceed two feet in length, width, or depth. In any case in which these regulations are infringed the packet will be charged unpaid-letter rate.

**COLONIAL.**—On the same conditions as the foregoing, and at the following charges (except that no packet weighing more than 3 lb. can be sent to the East Indies or New South Wales), book packets can be forwarded to any British colony. To India, Ceylon, New South Wales, Victoria, Tasmania (Van Diemen's Land), South Australia, Western Australia, New Zealand, Mauritius, and Hong-Kong, the charge is as follows:—4 oz., 4d.; more than 4 oz. but not exceeding 8 oz., 8d.; more than 8 oz. but not exceeding 1 lb., 1s. 4d., and so on; 8d. being charged for every additional  $\frac{1}{2}$  lb. or fraction thereof. Charges to every other British colony:—4 oz., 3d.; more than 4 oz. but not exceeding 8 oz., 6d.; more than 8 oz. but not exceeding 1 lb., 1s., and so on; 6d. being charged for every additional  $\frac{1}{2}$  lb. or fraction thereof. Book packets to or from India and New South Wales are limited to packages not exceeding 3 lb.

**FOREIGN** is subject to the same regulations as the inland postage, with the exception that no book, paper, or publication sent must contain any writing or manuscript mark of any sort. Rates of postage (which must be paid in advance) chargeable upon registered newspapers and other printed papers sent to Belgium, France, Algeria, or the French Offices in Turkey, Syria, and Egypt:—For a packet of registered newspapers not exceeding 4 oz., 1d.; above 4 oz. and not exceeding 8 oz., 2d.; and then 2d. for every additional 8 oz. or part thereof. For a packet of other printed papers not exceeding 4 oz., 3d.; above 4 oz. and not exceeding 8 oz., 6d.; and then 6d. for every additional 8 oz. or part thereof. Rates of postage (which must be paid in advance) chargeable upon book packets, including newspapers and other printed papers, addressed to Sardinia, Tuscany, Parma, Modena, and Venetian Lombardy, or other places in the Austrian dominions, when specially addressed *via* Sardinia:—For a packet of registered newspapers not exceeding 4 oz., Sardinia, 2d.; Tuscany, &c., from a port in Sardinia, 4d.; above 4 oz. and not exceeding 8 oz., Sardinia, 4d.; Tuscany, &c., from a port in Sardinia, 8d.; and so on, two rates being charged for every additional 8 oz. or part thereof. No packet must exceed 18 inches in length, width, or depth. For a packet of books or other printed papers not exceeding 4 oz., Sardinia, 4d.; Tuscany, &c., 6d.; above 4 oz. and not exceeding 8 oz., Sardinia, 8d.; Tuscany, &c., 1s., and so on, two rates being charged for every additional 8 oz. or part thereof. No packets of books or newspapers can be sent to the Austrian dominions, *via* Sardinia, if it weighs more than one pound, or exceeds 24 inches in length. As regards packets sent through France (except to the countries in the foregoing table of rates) the term "printed papers" does not include cases, or rollers, or maps, book-marks, pens, pencils, &c., but does include Parliamentary proceedings, books of every kind, sheets of music, and prints. Periodical works, not of daily publication, issued in the shape of pamphlets, may be sent by private ships to the United States at the following rates:—Not exceeding 2 oz., 1d.; 2 oz. and not exceeding 3 oz., 6d., and 2d. for every ounce or part thereof, up to 16 oz. The packet must be prepaid, and always sent in a cover open at the ends. Other printed papers or books (except those specified) to the above places are subject to letter rates.

## FOREIGN AND COLONIAL LETTERS.

## COMPULSORY PREPAYMENT.

To most places abroad prepayment is optional; but to others, of which a select list is given below, it is compulsory, and letters posted to these places unpaid are sent to the Return Letter Office in London.

PLACE.	RATES OF POSTAGE.			
	LETTERS.		BOOKS.	
	Not exceeding $\frac{1}{2}$ oz.	Above $\frac{1}{2}$ oz. and not exceeding 1 oz.	Registered Newspapers and other Publications with Newspaper privilege.	Unregistered Newspapers, &c., Books, and all other printed matter.
Africa, West Coast of .. .. .	s. d. 0 6	s. d. 0 6	1d. each.	Not exc. 4oz. 3d.
Antigua .. .. .	0 6	0 6	1d. "	" 4, 3d.
Ascension .. .. .	0 6	0 6	1d. "	" 4, 3d.
Australian Colonies, <i>via</i> Southampton ..	0 6	0 6	1d. "	" 4, 4d.
<i>and Suez</i> .. .. .	0 9	1 0	3d. and 4d.	Letter Rate.
Bathurst (Gambia) .. .. .	2 0	2 0	3d. "	Ditto.
Bolivia .. .. .	0 6	0 6	1d. "	Ditto.
Borneo, by private ship .. .. .	0 9	1 0	4d. "	Ditto.
<i>via</i> Marseilles and India .. .. .	0 6	0 6	2d. "	Ditto.
<i>via</i> Southampton and India .. .. .	1 0	1 0	1d. "	Ditto.
Brazil .. .. .	1 0	1 0	1d. "	Ditto.
Buenos Ayres .. .. .	2 2	2 2	1d. "	Ditto.
Cadiz, <i>via</i> Southampton .. .. .	0 8	0 11	Not exc. 4oz. 1d.	Not exc. 4oz. 3d.
California, <i>via</i> United States .. .. .	1 2½	1 2½	2d. each.	Letter Rate.
<i>via</i> Colon, New Grenada .. .. .	2 4	2 4	1d. "	Ditto.
Carthage (S. A.) .. .. .	0 6	0 6	1d. "	Ditto.
Cayenne .. .. .	0 9	1 0	3d. "	Ditto.
Ceylon, <i>via</i> Marseilles .. .. .	1 0	1 0	1d. "	Ditto.
Chagres .. .. .	2 0	2 0	3d. "	Ditto.
Chili .. .. .	0 9	1 0	3d. "	Ditto.
China, <i>via</i> Marseilles .. .. .	0 6	0 6	1d. "	Ditto.
<i>via</i> Southampton (except Hong-Kong) ..	2 3	2 3	1d. "	Ditto.
Costa Rica .. .. .	2 3	2 3	1d. "	Ditto.
Cuba .. .. .	1 2½	1 2½	2d. "	Ditto.
<i>via</i> United States .. .. .	1 2½	1 2½	Not exc. 4oz. 1d.	Not exc. 4oz. 3d.
Dardanelles, <i>via</i> France and Austria ..	2 0	2 0	3d. each.	Letter Rate.
Ecuador .. .. .	0 9	1 0	3d. "	Ditto.
Egypt, <i>via</i> Marseilles .. .. .	0 6	0 6	1d. "	Ditto.
<i>via</i> Southampton .. .. .	1 0	1 0	2½d. "	Ditto.
<i>via</i> Belgium (except Alexandria) ..	0 6	0 6	1d. "	Not exc. 4oz. 3d.
Falkland Islands .. .. .	0 6	0 6	1d. "	Ditto.
Fernando Po .. .. .	0 6	0 6	1d. "	Ditto.
Gibraltar .. .. .	0 9	1 0	Not exc. 4oz. 1d.	Ditto.
<i>via</i> France .. .. .	0 6	0 6	1d. each.	Ditto.
Guadalupe .. .. .	1 5	1 5	1d. "	Letter Rate.
Guatemala .. .. .	0 6	0 6	1d. "	Ditto.
Havannah .. .. .	2 3	2 3	1d. "	Ditto.
<i>via</i> United States .. .. .	1 2½	1 2½	2d. "	Ditto.
Hayti (St. Domingo) .. .. .	1 5	1 5	1d. "	Ditto.
Heilgoland, by private ship .. .. .	0 6	0 6	1d. "	Not exc. 4oz. 3d.
<i>via</i> Hamburg .. .. .	0 8	0 8	1d. "	Ditto.
Hong-Kong, <i>via</i> Marseilles .. .. .	0 9	1 0	2d. "	Ditto.
<i>via</i> Southampton .. .. .	0 6	0 6	1d. "	Not exc. 4oz. 4d.
Ionian Islands, by private ship .. .. .	0 6	0 6	1d. "	Ditto.
Java, <i>via</i> Marseilles .. .. .	0 9	1 0	3d. "	Letter Rate.
<i>via</i> Southampton .. .. .	0 6	0 6	1d. "	Ditto.
<i>via</i> Holland .. .. .	0 8	0 8	2d. "	Ditto.
Labuan, by private ship .. .. .	0 6	0 6	1d. "	Not exc. 4oz. 3d.
<i>via</i> Marseilles and India .. .. .	0 6	0 6	2d. "	Ditto.
<i>via</i> Southampton .. .. .	0 6	0 6	Not exc. 4oz. 1d.	Ditto.
Luxemburg (Duchy of), <i>via</i> Belgium ..	1 10	1 10	1d. each.	Ditto.
Madagascar .. .. .	1 9	1 9	1d. "	Ditto.
<i>via</i> Lisbon .. .. .	0 9	1 0	3d. "	Ditto.
Malta, <i>via</i> Marseilles .. .. .	0 6	0 6	1d. "	Not exc. 4oz. 3d.
<i>via</i> Southampton .. .. .	0 9	1 0	Not exc. 4oz. 1d.	Ditto.
<i>by</i> French packet, <i>via</i> Marseilles ..	1 5	1 5	1d. each.	Ditto.
Martinique .. .. .	2 3	2 3	1d. "	Ditto.
Mexico .. .. .	1 5	1 5	2d. "	Ditto.
<i>via</i> United States .. .. .	1 0	1 0	1d. "	Not exc. 8oz. 6d.
Monte Video .. .. .	0 6	0 6	1d. "	" 4, 4d.
Natal .. .. .	0 6	0 6	1d. "	Ditto.
New Zealand, <i>via</i> Southampton and Suez ..	0 9	1 0	3d. "	Letter Rate.
<i>via</i> Marseilles and Suez .. .. .	2 0	2 0	1d. "	Ditto.
Pacific (any place in) .. .. .	2 7	2 7	1d. "	Ditto.
<i>via</i> Brazil .. .. .	1 0	1 0	1d. "	Ditto.
Panama .. .. .	2 0	2 0	2d. "	Ditto.
Peru .. .. .	0 6	0 6	1d. "	Ditto.
Philippine Islands, by private ship ..	0 9	1 0	4d. "	Ditto.
<i>via</i> Marseilles and India .. .. .	0 6	0 6	2d. "	Ditto.
<i>via</i> Southampton and India .. .. .	2 0	2 0	1d. "	Ditto.
Poland, <i>via</i> Belgium (Registered) ..	1 9	1 9	1d. "	Ditto.
Portugal .. .. .	0 8	0 11	Not exc. 4oz. 1d.	Not exc. 4oz. 3d.
<i>via</i> France .. .. .	1 9	1 9	1d. each.	Letter Rate.
<i>via</i> Brazil packet .. .. .	2 0	2 0	1d. "	Ditto.
Russia, <i>via</i> Belgium (Registered) ..	2 3	2 3	1d. "	Ditto.
St. Juan de Nicaragua .. .. .	0 6	0 6	1d. "	Not exc. 4oz. 3d.
St. Vincent (West Indies) .. .. .	1 2½	1 2½	2d. "	Ditto.
Sandwich Islands, <i>via</i> United States ..	2 4	2 4	4d. "	Letter Rate.
<i>via</i> Panama .. .. .	0 8	0 8	2½d. "	Ditto.
Sicily (Two), <i>via</i> Belgium .. .. .	0 8	0 8	2½d. "	Ditto.
Spain (Cadix and Vigo excepted) ..	0 8	0 11	Not exc. 4oz. 1d.	Not exc. 4oz. 3d.
<i>via</i> Southampton (including Cadiz ..	2 2	2 2	1d. each.	Letter Rate.
<i>and Vigo</i> .. .. .	0 6	1 0	Not exc. 4oz. 1d.	Not exc. 4oz. 3d.
Syria, <i>via</i> Marseilles by French packet ..	0 6	1 0	" 4, 4d.	" 4, 4d.
Tangiers, <i>via</i> France .. .. .	0 6	0 6	1d. "	Ditto.
Tasmania, <i>via</i> Southampton and Suez ..	0 9	1 0	3d. "	Letter Rate.
Tunis, <i>via</i> Marseilles by French packet ..	0 6	1 0	Not exc. 4oz. 1d.	Not exc. 4oz. 3d.
Turkey, <i>via</i> Belgium .. .. .	0 8	0 8	(see the places specified) 2d.	J Letter Rate.
United States, by private ship .. .. .	0 6	0 6	1d. each.	Ditto.
Vancouver's Island, by private ship ..	0 6	0 6	1d. "	Not exc. 4oz. 3d.
<i>via</i> Panama .. .. .	2 4	2 4	4d. "	Letter Rate.
Victoria (Australia), <i>via</i> Southampton ..	0 6	0 6	1d. "	Not exc. 4oz. 3d.
<i>and Suez</i> .. .. .	0 9	1 0	3d. "	Letter Rate.
Vigo, <i>via</i> Southampton .. .. .	2 2	2 2	1d. "	Ditto.
West Coast South America .. .. .	2 0	2 0	5d. "	Ditto.
West Indies (British) .. .. .	0 6	0 6	1d. "	Not exc. 4oz. 3d.
West Indies (Foreign), except Cuba, St. Thomas, St. Croix, St. Martin, and ..	1 5	1 5	1d. "	Letter Rate.
West Australia, <i>via</i> Southampton and Suez ..	0 6	0 6	1d. "	Not exc. 4oz. 3d.
<i>via</i> Marseilles and Suez .. .. .	0 9	1 0	3d. "	Letter Rate.
Wurtemberg, <i>via</i> France .. .. .	0 6	1 0	Not exc. 4oz. 1d.	Not exc. 4oz. 3d.



## AUGUST.

THE SUN is north of the Equator during this month, and remains in the sign of Leo until 5h. 23m. P.M. of the 23rd, when it passes into that of Virgo. An eclipse of the Sun takes place on the 27th, which is invisible at London. The Moon is situated near Uranus on the morning of the 22nd, near Jupiter at midnight of the 24th, near Saturn and Mars on the morning of the 27th, near Venus on the same evening, and near Mercury on the morning of the 28th. A total eclipse of the Moon occurs on the 13th, which is invisible at London. The Moon is at its greatest distance from the Earth at 6 P.M. of the 12th, and at its least on the morning of the 27th.

First Quarter	occurs at 22 minutes past 3	on the evening of the 5th.
Full Moon	" 34 "	" 4 on the evening of the 13th.
Last Quarter	" 46 "	" 1 on the evening of the 21st.
New Moon	" 14 "	" 5 on the morning of the 28th.

MERCURY is favourably situated for observation at the beginning of the month, but afterwards approaches too near the Sun. It remains in the constellation of Leo throughout the month. It is stationary on the morning of the 14th, in conjunction with the Moon on the morning of the 28th, in inferior conjunction with the Sun on the same evening, and is a few degrees south of Venus on the evening of the 31st.

VENUS is an uninteresting object during the present month, the disc of the planet now being almost round, and of inconsiderable dimensions. On the morning of the 21st it is situated within ten minutes of Saturn, and at midnight of the same day it is only four minutes south of Mars, the three planets forming a cluster. It is at its shortest distance from the Sun on the morning of the 25th, and is a little to the north of the Moon on the afternoon of the 27th. It is in the constellation of Gemini at the beginning of the month, in that of Cancer at the middle, and in that of Leo at the end of the month.



QUADRUPLE STAR EPSILON LYRAE.

MARS is at its greatest distance from the Earth on August 1st, and remains invisible throughout the month from its proximity to the Sun. It is in the constellation of Cancer at the beginning and middle of the month, and in that of Leo at the end. It is a quarter of a degree north of Saturn on the morning of the 20th, and a degree and a half north of the Moon on the morning of the 22nd.

JUPITER is visible during the early mornings. It is three degrees south of the Moon on the morning of the 25th. It is within a very short distance of the star of the third magnitude, Delta Geminorum, during the latter part of the month, being about ten minutes north of it on the 24th. It remains in the constellation of Gemini throughout the month.

SATURN disappears from view during the present month, and is in conjunction with the Sun on the morning of the 9th. It is near the Moon on the morning of the 27th. It is in the constellation of Cancer to August 5th, after which it is in the constellation of Leo.

URANUS is five degrees and a quarter south of the Moon on the morning of the 22nd, and remains in the constellation of Taurus throughout the month. It is in quadrature with the Sun at 4h. 55m. P.M. of the 31st.

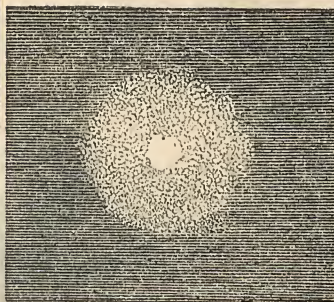
ECLIPSES OF JUPITER'S SATELLITES.—August 28th, 3h. 6m. morning, disappearance of first satellite.

Among the many remarkable double stars visible in the northern heavens, the system of Epsilon Lyrae, which can now be well seen, may be considered as the most curious, consisting as it does of two pairs of stars, both groups being at such a short distance from each other as to appear as a single star to the naked eye. The four stars are nearly of equal lustre, and there is no perceptible difference of colour between them. A small telescope or opera-glass will separate the two stars of Epsilon Lyrae, but it requires a good telescope to show each of its components as double, the distance between them being only about four seconds. There are a number of very minute stars between the two systems, whose places we have given in the above diagram, and which is another test for the space-penetrating power of a telescope.

The month of August is very similar to the last, and the mean temperature now arrives at its maximum, being 61·7 degrees for this month. The winds are generally the same as during last month, and the same thunderstorms may be expected, and very heavy storms of rain and hail sometimes occur. The quantity of rain which falls during this month is more variable than at any other time of the year. The greatest quantity registered amounts to 5·8 inch; the least, to 0·2 inches. This month is remarkable for the periodic appearance of shooting stars, which are unusually plentiful at this time.

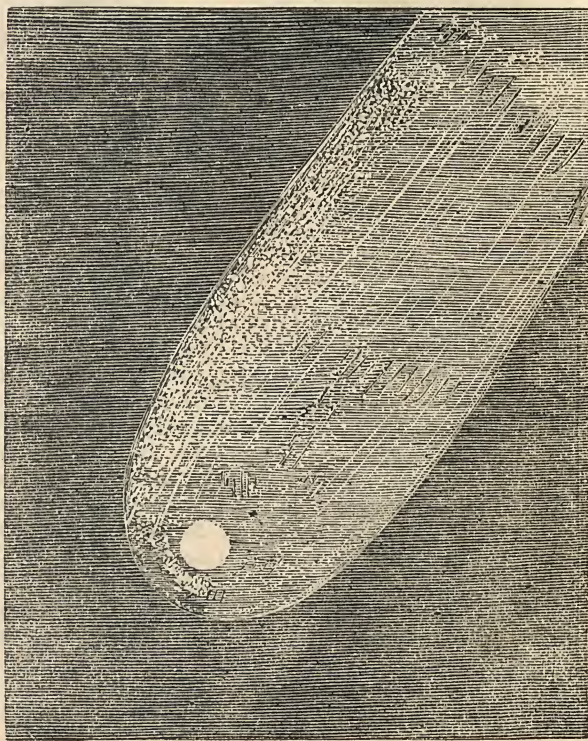
## DONATI'S COMET.

THE comet discovered by M. Donati on June 2 of the year 1858, and of which we here give Engravings of its appearance on August 28



DONATI'S COMET ON AUG. 23, 1858.

Rebellion, it suddenly started up forty thousand strong, that any notice was taken of it. Since that time it has been a nightly object of wonder, and the passage of the bright nucleus of the comet a little below (within less than half the diameter of the moon) the bright star *Arcturus* (on Oct. 5), when the ruddy light of that object shone in brilliant contrast through the densest part of the pallid light of the tail of the comet was a sight seldom witnessed in the heavens, and will, no doubt, be often narrated in after-times by the millions who observed this event. The tail of the comet was a most beautiful spectacle on this and the following nights; and on Oct. 8 it could be traced for a distance of forty degrees, being very bright near the head and convex part of the tail, and much brighter than the concave. On Oct. 2 the tail passed over a bright cluster of stars, which could be still traced through it. The changes which the nucleus has undergone are as surprising as those which have taken place in the size of its tail, throwing out jets of light and luminous sectors, and altering its appearance almost nightly. (For an account of which see the ILLUSTRATED LONDON NEWS.) The



DONATI'S COMET ON SEPT. 17, 1858, 8½ P.M.

periodic time of this remarkable comet has been calculated as 2100 years, so that it need not expect to "revisit the glimpses of the Sun" until the year A.D. 3958. But it will still return before the great comet of 1811, whose time of revolution round the Sun has been calculated as 3383 years! From the published and actual measurements of astronomers, the tail of the comet of 1811 was considerably of shorter dimensions than that of 1858, the greatest length, as measured by Sir W. Herschel on Oct. 6, 1811, being twenty-five degrees, whilst the apparent length of the tail of the comet of 1858 was forty degrees on Oct. 7. Altogether, the appearance of the unexpected comet of 1858 was a very good substitute for that of the reappearance of the great expected comet of 1556. In addition to the great comet of Donati and the two periodic comets which have returned during the year 1858, no less than five others have been detected during that time. None of these objects have been seen without the help of the telescope. On Friday night (October 8) four comets were in view.





Day of Month	Day of Week	ANNIVERSARIES, FESTIVALS, REMARKABLE EVENTS.	SUN.				MOON.				HIGH WATER AT				PLANETS.				
			Rises at London.		SETS at London.		Rises at London.		SETS at London.		LONDON BRIDGE.		LIVERPOOL DOCK.		Day of M	Rise.		Sets.	
			SOUTHS.				SOUTHS.				Morn. Aftern.		Morn. Aftern.			South.			
			H. M.	M. S.	H. M.	M. S.	H. M.	M. S.	H. M.	M. S.	H. M.	M. S.	H. M.	M. S.		H. M.	M. S.	H. M.	M. S.
1	Th	<i>St. Giles</i>	5 13	11 59	59 6	46	—	3 36	7 54	4	4 34	4 53	1 31	1 50	Mercury.	1 4 48 M	11 31 M	6 15 A	
2	F	Sun rises at Edinburgh 5h. 8m.	5 14	11 59	41 6	44	0 27	4 28	8 19	5	5 12	5 30	2 8	2 28		6 4 9	11 4	6 0	
3	S	Sun sets at Edinburgh 6h. 47m.	5 16	11 59	22 6	42	1 45	5 21	8 52	6	5 50	6 11	2 49	3 11		11 3 51	10 51	5 51	
4	S	11TH S. aft. TRIN.	5 18	11 59	26 39		2 52	6 14	9 36	D	6 33	6 57	3 35	4 2		16 3 53	10 51	5 48	
5	M	Sun rises at Dublin 5h. 17m.	5 19	11 58	43 6	37	3 46	7 7	10 31	8	7 24	7 57	4 35	5 17		21 4 14	11 0	5 45	
6	Tu	Sun sets at Dublin 6h. 36m.	5 21	11 58	23 6	35	4 26	7 58	11 35	9	8 39	9 25	6 3	6 49	Venus.	1 4 28	11 35	6 41	
7	W	<i>Eunuchus</i>	5 23	11 58	36 33		4 56	8 47	Morn.	10	10 11	10 55	7 33	8 16		6 4 43	11 39	6 33	
8	Th	Fall of Sebastopol, 1855	5 24	11 57	42 6	30	5 18	9 33	0 46	11	11 38	—	8 52	9 19		11 5 0	11 43	6 25	
9	F	Twilight ends 8h. 30m.	5 26	11 57	22 6	28	5 35	10 16	1 58	12	0 14	0 41	9 39	9 59		16 5 15	11 46	6 15	
10	S	Day's decrease 3h. 36m.	5 27	11 57	16 26		5 48	10 58	3 9	13	1 1	1 21	10 18	10 35		21 5 31	11 49	6 6	
11	S	12TH S. aft. TRIN.	5 29	11 56	40 6	23	5 59	11 3	4 20	14	1 40	1 57	10 50	11 5	Mars.	1 3 51	11 10	6 28	
12	M	Sun rises at Edinburgh 5h. 28m.	5 31	11 56	19 6	21	6 11	Morn.	5 31	O	2 12	2 27	11 19	11 33		6 3 50	11 3	6 16	
13	Tu	Sun sets at Edinburgh 6h. 22m.	5 32	11 55	58 6	19	6 22	0 18	6 42	16	2 41	2 55	11 46	—		11 3 50	10 56	6 1	
14	W	<i>Holy Cross</i>	5 34	11 55	37 6	16	6 35	0 59	7 54	17	3 8	3 22	0 0	0 15		16 3 48	10 48	5 47	
15	Th	Sun rises at Dublin 5h. 35m.	5 35	11 55	16 6	14	6 50	1 42	9 9	18	3 37	3 52	0 30	0 45		21 3 46	10 40	5 33	
16	F	Sun sets at Dublin 6h. 12m.	5 37	11 54	55 6	12	7 9	2 28	10 26	19	4 7	4 22	1 0	1 15	Jupiter.	26 3 45	10 32	5 18	
17	S	<i>Lambert</i>	5 39	11 54	34 6	10	7 36	3 18	11 45	20	4 37	4 53	1 31	1 49		1 0 29	8 38	4 47	
18	S	13TH S. aft. TRIN.	5 40	11 54	12 6	8	8 15	4 12	Aftn.	21	5 11	5 30	2 8	2 29		6 0 14	8 22	4 30	
19	M	Day breaks 3h. 45m.	5 42	11 53	51 6	5	9 8	5 10	2 11	C	5 51	6 13	2 51	3 16		11 11 56 A	8 6	4 13	
20	Tu	Battle of the Alma, 1854 Delhi taken, 1857	5 43	11 53	30 6	3	10 20	6 10	3 5	23	6 38	7 8	3 46	4 25		16 11 39	7 49	3 56	
21	W	<i>St. Matthew</i>	5 45	11 53	9 6	0	11 43	7 11	3 47	24	7 47	8 33	5 11	6 0	Saturn.	21 11 24	7 33	3 39	
22	Th	Length of day 12h. 11m.	5 47	11 52	48 5	58	Morn.	8 10	4 17	25	9 22	10 12	6 50	7 38		26 11 8	7 16	3 21	
23	F	Sun rises at Edinburgh 5h. 50m.	5 49	11 52	27 5	56	1 13	9 6	4 38	26	11 0	11 40	8 18	8 49		1 3 17 M	10 46	6 15	
24	S	Sun sets at Edinburgh 6h. 53m.	5 50	11 52	7 5	53	2 43	10 0	4 55	27	—	0 11	9 15	9 40		6 3 1	10 29	5 57	
25	S	14TH S. aft. TRIN.	5 51	11 51	46 5	51	4 13	10 51	5 10	28	0 37	1 2	10 3	10 25		11 2 45	10 12	5 39	
26	M	Lucknow relieved, 1857	5 53	11 51	26 5	49	5 41	11 41	5 25	●	1 25	1 47	10 45	11 5	Uranus.	16 2 28	9 54	5 20	
27	Tu	Day breaks 3h. 50m.	5 55	11 51	6 5	47	7 8	Aftn.	5 41	1	2 7	2 27	11 25	11 45		21 2 12	9 37	5 2	
28	W	Twilight ends 7h. 38m.	5 56	11 50	46 5	44	8 35	1 23	5 57	2	2 47	3 7	—	0 5		26 1 55	9 19	4 43	
29	Th	<i>St. Michael.</i>	5 58	11 50	26 5	42	10 0	2 15	6 20	3	3 27	3 47	0 25	0 44		1 9 37 A	5 44	1 48	
30	F	<i>St. Jerome</i>	6 0	11 50	6 5	40	11 22	3 10	6 50	4	4 6	4 24	1 2	1 21		6 9 17	5 25	1 29	
		Mich. Day														11 8 57	5 5	1 9	
																16 8 38	4 46	0 50	
																21 8 18	4 26	0 30	
																26 7 58	4 6	0 10	





PORTRAIT OF HER MAJESTY THE QUEEN OF PORTUGAL.—FROM "THE ILLUSTRATED LONDON NEWS."

#### THE MARRIAGE OF THE KING OF PORTUGAL WITH THE PRINCESS STEPHANIE.

THE marriage by proxy of the King of Portugal with the Princess Stephanie took place at the Church of St. Hedwige, Berlin, on Thursday, the 29th April, 1858, in presence of the Prince of Prussia and a Royal party. The bride was accompanied by her parents, the Prince and Princess of Hohenzollern-Sigmaringen.

The Prince Bishop of Breslau officiated. He opened his sermon with a description of the nature of matrimony, as the earliest, closest, and holiest of all human ties. Having alluded then to the importance of the career which the bride was about to enter upon, he concluded with pointing to the celestial example of the Holy Virgin, and the earthly pattern of St. Elizabeth of Portugal, who came likewise from a foreign country to the throne of her husband, and, under severe trials, distinguished herself as a noble-minded Sovereign, tender wife, a loving mother of her country, and true daughter of the Church.

Immediately after the conclusion of the marriage ceremony the grantees who had been sent by the King of Portugal to receive his Queen from the hands of his proxy stepped forward, and in front of the altar, and in the presence of the whole assemblage, knelt down successively to kiss the hand

of their young Sovereign. The Duke of Terceira, a tall, martial-looking man, with grey hair and a white beard, whose countenance reminded the Prussians of that of Blücher, was the first to pay his homage to his newly-gained Queen. This ceremony, which concluded the ecclesiastical part of the proceedings, had something deeply affecting in it. The young Queen seemed scarcely able to suppress her emotion at the moment when this homage was rendered to her in the midst of such a splendid throng, and on a consecrated spot. Everybody in the company was affected at the thought that this was the turning-point in the life of one who had, hitherto, in her rural retreat, been all-unconscious of the proud dignity which awaited her. Brought up in a little Suabian country town, where her father resided, until the year '48, a petty Sovereign, the Princess, and the Hohenzollern family, in consequence of the revolutionary movements of that time, established themselves in Prussia, where the younger branch of the house had, centuries ago, ascended the throne of the country. The Principality of Hohenzollern then became an integral portion of Prussia, and the elder branch of the family was recognised anew as belonging to the Royal dynasty of the country. Since that time the parents of Princess Stephanie have resided at Düsseldorf, on the Rhine, whence they visited Berlin only at rare intervals. The elder branch of the Hohenzollern family have never been Protestants. The Princess Stephanie-Frédérique-Wilhelmine-Antoinette was born on the 15th July, 1837.



## BRITISH BIRDS OF THE SEASON.

## SEPTEMBER AND OCTOBER.

DEFINITE are the characteristics of September. There is warmth at mid-day, but cool at the mornings and the evenings, often chilly; and variable winds, precursors of the equinoctial gales, sweep through the woods with a deep mysterious resonance, like that of the rolling sea. The tall trees bend, and the branches wave to and fro. Clouds gather and disperse, and gather again; and sudden showers accompany rough gusts of wind driving across the wide Atlantic.

The harvest is over; the fields which were lately a waving expanse of corn are now covered only with stubble; the reaper has done his work, and the ploughman is about to begin his labour. And yet, September is not without its pleasant days—it is a refreshing month after the glowing heat of August. It is the month of Pomona, rather than of Flora; not that there are no flowers, for the garden is gay with the monthly rose, the china aster, the golden rod, the hollyhock, the fuchsia, the scarlet geranium, the chrysanthemum, the dahlia, and many more, which linger long, as loath to yield, till subdued by the freezing blasts of winter. The hedgerows, bordering fields and quiet lanes, are adorned with the patulous snowy blossoms of the great bindweed (*Convolvulus sepium*) trailing up the bank, and intertwining among the matted stems and branches. The bitter-sweet (*Solanum Dulcamara*), known as the woody nightshade, a climbing hedgerow plant, is still in blossom, while bunches of glassy sweet berries show that its true flowering time is over, and that these are but a feeble efflorescence—a last effort. Red, too, are the berries of the bryony, companion of the bitter-sweet, a graceful, tendrilled plant, throwing its long, palmate-leaved stem into many a wreath and fold. Red, also, are the berries of the honeysuckle, the fragrant bower-plant of the copse and thicket. Yes, September is the season over which Pomona presides. The hop-gatherers are busy; the cider-press is crushing the ripe, ruddy apple; the downy peach and fragrant nectarine adorn the southern wall; and the clustering grapes are ripening.

And now, too, the insect tribes display indications of an altered state of things in their general economy. As the weeks pass by, less and less numerous are the butterflies on the wing; less numerous are the night-flying moths; caterpillars are seeking nooks and crannies in which to assume their first stage of transformation—the chrysalis condition. Some in silken cocoons await their final change; some naked and suspended; others buried in the earth, or in the centre of timeworn, mouldering trees; and not a few in the crevices of the bark, or between the bark and the softening timber. But the bee is still busy. In orchard and garden the geometrical spider (*Epeira diadema*), an industrious weaver by night, spreads her nets of radii and concentric circles, with long lines of rigging stretching from tree to tree, or from bush to bush, across our footpath. We have all heard of the gossamer spider, the aeronautic spider, that on filmy threads mounts high into the atmosphere, sailing over tree and tower, myriads floating aloft, the prey of the swallow and martin. In Germany flights of gossamer are so common in autumn that they are fancifully called “Der Fliegender sommer,”—the departing summer. Such flights are far from being infrequent in our own island. Let a change in the humidity of the atmosphere take place, let their filmy parachutes become saturated with moisture, and a shower of flakes ensues; the hedges are draped with them, they bespangle meadow and stubble-field, they fall in showers, showers of delicate gauze, glittering, dew-bespangled, in the rays of the morning sun. Many are the instances on record of extraordinary falls of gossamer-web emulating a fall of snow-flakes: such we have ourselves seen, the fields being carpeted, and the hedgerows and bushes festooned, by shreds of lace from the loom of Arachne.

There is a movement among the feathered tribes; there is a general preparation among our summer visitors for departure, the symptoms of which are more and more decided as September approximates to October.

The swift left us in August. The nightingale is now in haste to follow, and so is the vryneck. The wheatears are assembling on the downs of Kent, Surrey, and Sussex, every day bringing fresh arrivals from the midland counties, till at last they cover the open lands almost as thick as autumnal “leaves in Vallombrosa.” At this season they are caught by thousands in snares of horsehair and traps. Perhaps they are less numerous than formerly, for Latham gives the numbers annually captured in the neighbourhood of Eastbourne as amounting in his day to more than one thousand eight hundred dozens; and he adds that a single shepherd has been known to take eighty-four dozens in a single day (Linn. Trans., vol. iv., p. 17). The wheatear is one of the choicest delicacies of the table. It is fat on its arrival in the middle of March, and such also is its condition in the month of September. Small coleopterous insects are its favourite food.

Hark! the sharp report of the double-barrel rings in our ear. On whirling wings a startled covey of partridges hurries off to a distant spot, the extent of their flight depending upon the more or less perfect moulting of their primary wing-feathers, which is generally completed by the end of October. In August the sportsman was toiling through the tall heather of the northern moorlands in pursuit of the red grouse or moor game; he is now working his way through stiff stubble-fields and broad acres of turnips, bent upon the destruction of the partridge. He brings with him his keen-scented, high-bred, and well-trained pointers, staunch dogs, true to their point—standing steadily to their birds. We have many instances on record of the unflinching nerve of the pointer—none, perhaps, more astonishing than was displayed by two favourites in the possession of the celebrated Mr. Daniel. In his “Rural Sports” is an engraving after Gilpin of two pointers—a black dog, named Pinto, and a white bitch, called Juno—which kept their point during the time in which Mr. Gilpin made the sketch of them, and which occupied an hour and a quarter. All this while they stood as if carved in marble, motionless statues, intent upon one object only—the game before them.

Our Plato depicts a covey of partridges, half-concealed amidst tall stubble and trailing weeds. The sportsman is on their track, and they have caught the alarm. Unlike the grouse, the partridge follows cultivation. The drainage and reclamation of waste lands, and the extension of agriculture, while they have tended to render scarce, or even to banish, some species once common in our island, have encouraged the increase of the partridge—a bird delighting in richly-clothed corn-fields, and always the most abundant in extensive arable districts. The partridge rears from twelve to

eighteen chicks at a time, but we believe only one brood during the season, and the duty of incubation falls exclusively to the share of the female. Few birds are more solicitous about the welfare of their young, in defence of which, against hawk or crow, the parents display an unexpected degree of boldness. The young run as soon as fairly hatched, following the old birds and cowering beneath their wings. Much do they feed on the larvae of ants, in order to obtain which the parents serape open the anthill, letting light into mines and galleries. To these are added small insects generally, and the seeds of various plants. When danger is imminent, many a ruse do the parents practise to decoy the intruder from their lurking-place. The male bird, though he leaves the tedium of incubation to his mate, assiduously attends her, and unites with her in the guidance and protection of the brood. The young obey his warning note, and scatter and crouch accordingly, while he prepares to give battle, or artfully draws the enemy to a distance. Pugnacious is the partridge, and severe are the contests which take place between rival males at the pairing season. In September the young are strong upon the wing, but, unless scattered asunder by the gun, the family form a united covey, often joining another till the ensuing February, when a general separation takes place, and the males choose their mates. The feeding-time of the partridge is early in the morning, even before sunrise, and again towards the dusk of evening. During the day they bask in the sun, and dust and clean their plumage. They pass the night hours of repose—the whole covey crowded together—in the centre of a wide stubble-field or grassy lay. Formerly it was a practice to net partridges both by day and by night. In the former case a trained hawk was employed to hover over the covey, the locale of which was indicated by the setting dog. Sometimes a paper kite was used as a means of keeping down the affrighted birds while the net was drawn over them. This unfair mode is now obsolete, and it must be remembered that when in vogue the fowling-piece was in a rude condition, and the sportsman seldom attempted to bring down a bird on the wing. There is in the National Gallery a fine picture, entitled “Rubens’s Château,” in which we see a fowler cautiously stealing, gun in hand, upon a covey of partridges (the red-legged) for the purpose of firing amongst them ere they take alarm. Such was the ordinary mode of *birding*, as it was called in the olden time, when the gun was beginning to supersede the crossbow and bolt.

Within late years the red-legged or Guernsey partridge, more common on the Continent than our *Perdix cinerea*, has been introduced into several counties, but without advantage. It is a beautiful bird, larger than our ordinary species; but its flesh is decidedly inferior. It affords the sportsman no satisfaction, as it runs before the dog, and cannot be flushed without difficulty. Moreover, it drives away the common partridge, usurping its place, inasmuch as its encouragement would tend to render our own more valued species scarce. Such an exchange is very undesirable.

September and October are the sportsman’s months. There is grouse-shooting on the moorlands, and partridge-shooting over the lowlands and the corn-growing champaign; then in October comes the season for invading the haunts of the pheasant; and then, too, we receive our first flight of woodcocks, which resort to brakes of birch and underwood, to thickets bordering the wood, and to jungles overshadowing oozy ground or miry spots, intersected by sluggish rills, pools, or ditches. Flights of snipes, also, now begin to make their appearance, driven from the higher latitudes of Northern Europe. These swell the numbers of home-bred birds; they resort to fens and bogs, to splashy osier-beds, bordering creeks, and drainage-cuttings, or covering low swamps adjacent to the broad mere or winding river.

Nor must we quite forget our furred game, of which the nobles<sup>\*</sup> is the red deer; then come the fallow deer and the roe. Among the “beastes of venarie,” the hare is to be accounted; but not the rabbit, nor yet the fox. Yet rabbit-shooting affords good sport, and foxes are preserved for the excitement afforded by the hazardous chase. There is deerstalking in the Highlands, and the greyhounds are led out in leash for “the coursing” of the hare. Fowling-piece and rifle, greyhound and foxhound, and harrier, are each and all in requisition. There is the setter on the heath, the pointer roams the stubble-fields, and the spaniel threads the mazes of the pheasant-brake. But the sportsman has yet to wait for the season of waterfowl.

It is October; there is a shivering of leaves in the woodlands, and their dark green gives place to golden yellow, to russet brown, and dark-ensanguined red. How different from the tender greens of spring! more gorgeous these hues, it is true, and the painter rejoices in them; but they tell us of the waning year; and the winds, as they murmur through the branches, sing an elegiac strain. Another stage is at hand: the glories of autumn will fade, and the storm and the tempest will sweep over the desolate fields and through the naked forest. Earnest now are our summer birds of passage in their preparations for departure. Swallows and martins congregate in flocks of myriads, sometimes, as we have seen, like clouds of locusts, darkening the sky. They wheel round reed-beds, settling, not without clamour and tumult, on the stems as evening yields to night. We have seen them cover the willow eyots<sup>†</sup> in the Thames, and the roofs of the houses on the bank. By the close of October these flocks have all disappeared, with the exception of a few stragglers, which, if they gain sufficient strength, soon follow in the track of the more early broods; if not, they linger and die, for, as we have before said, swallows do not hibernate.

The clouds of swallows, as we have said, are dashing around, crossing each other in every fantastic variety of evolution—some at a higher, others at a lower, elevation. It may be that they are exercising their pinions for a more enduring flight. At the same time it must not be supposed that our summer migratory birds reach their ultimate destination without rest by the way. Many of them are birds of feeble flight and incapable of a stretch of hundreds or thousands of miles. They gradually follow the sun, and proceed by longer or shorter stages, as temperature and the means of sustenance may determine. Strong-winged birds may, indeed, sweep over sea and land with little or no need of rest; but not so the tender warblers, the delicate blackcap, the flycatcher, and many more, nor yet the corncrake, nor the quail; indeed, as is well known, the latter makes only short journeys, and on alighting by thousands is often so exhausted as to become an easy spoil to an expectant populace. Space forbids our reference to the habits of these birds along the shores of the Mediterranean. The trees are rapidly shedding their thin and scared foliage. The redbreast is singing on a leafless spray in the garden. October is closing.

\* Eyot, sometimes written ait (eye), is the old Saxon name for a small island. Eyecot, or eyot, is a mere willow-bed in the stream, a smaller islet.



# THE ILLUSTRATED LONDON ALMANACK FOR 1859.

## SEPTEMBER.

THE SUN is north of the Equator and in the sign of Virgo until 2h. 10m. p.m. of the 23rd, when it passes into that of Libra and is south of the Equator, and the autumn quarter commences.

THE MOON is near Uranus on the afternoon of the 18th, near Jupiter on the afternoon of the 21st, near Saturn on the evening of the 23rd, near Mars on the morning of the 25th, near Mercury on the evening of the same day, and near Venus on the afternoon of the 26th. It is at its greatest distance from the Earth at midnight of the 8th, and at its least distance on the afternoon of the 24th.

First Quarter occurs at 5 minutes past 4 on the morning of the 4th.	
Full Moon           "   31           "   8 on the morning of the 12th.	
Last Quarter       "   14           "   1 on the evening of the 19th.	
New Moon           "   56           "   1 on the afternoon of the 26th.	

MERCURY is in the constellation of Leo at the beginning of the month, and in that of Virgo at the end of the month. It is stationary on the afternoon of the 6th, in conjunction with Mars on the same evening, at its greatest westerly elongation on the morning of the 14th, and a little to the south of Mars at the same time; in perihelion on the afternoon of the 16th, and about five degrees north of the Moon on the evening of the 25th. It is generally favourably situated for viewing throughout the month.



POSITION OF THE VARIABLE STAR DELTA CEPHEI.

VENUS is now most unfavourably situated for observation, being near the Sun, and the disc being very small and nearly round. The diameter of the disc is now less than ten seconds. It is five degrees and a half north of the Moon on the afternoon of the 26th, and in superior conjunction with the Sun at midnight of the 27th, and will be altogether lost in the beams of the latter luminary for some days. It is in the constellation of Leo at the beginning of the month, and in that of Virgo at the middle and end of the month.

MARS remains in the constellation of Leo throughout this month, and is in too close proximity with the Sun and at too great a distance from the Earth to be visible. It is three degrees and a half north of the Moon on the morning of the 25th.

JUPITER is now the morning star, rising shortly after midnight at the beginning of the month, and before midnight at the end of the month. It remains in the constellation of Gemini throughout the month. On the night of September 2nd it is almost due east of Delta Geminorum, and on the evening of the 21st it is a little to the south of the Moon.

SATURN remains invisible until the latter end of the month, when it comes into view a couple of hours after twilight. It is, however, unfavourably situated for observation, as the divisions on the ring and the satellites are almost invisible at low altitudes, except under the best atmospheric circumstances. The dark portion of the sky between the ring and the ball of the planet is now becoming of very small dimensions, and the dusky ring will in consequence be very indistinct. The ratio of the greatest to the least exterior breadth of the ring during the present month is as 37 to 8. It is in the constellation of Leo during this month, and is near the Moon on the 23rd.

URANUS is in the constellation of Taurus throughout the month, is stationary on the afternoon of the 13th, and about five degrees south of the Moon on the afternoon of the 18th.

ECLIPSES OF JUPITER'S SATELLITES.—September 2nd, 4h. 11m. morning, disappearance of second satellite; September 7th, 1h. 24m. morning, disappearance of third; September 13th, 1h. 21m., disappearance of first; September 20th, 3h. 14m. morning, disappearance of first; September 27th, 5h. 7m. morning, disappearance of first.

DELTA CEPHEI is visible throughout the year in the latitude of the British islands, but is most favourably situated for observation during the autumnal months, passing the meridian at midnight, in the latter part of August. This is one of the few variable stars whose fluctuations of light are perceptible to the unassisted vision, changing from between the third and fourth magnitudes to nearly the fifth, and thence again to its greatest

brightness, in five days eight hours forty-seven minutes and forty seconds. The change of lustre does not go on gradually, as it rises from the  $4\frac{1}{2}$  magnitude to the 3 $\frac{1}{2}$  magnitude in one day fourteen hours and a half, and remains at this for a couple of hours, and thence passes slowly back again to its minimum brightness, which continues for almost eight hours. The changes in its lustre will be more apparent if we compare it at intervals with the neighbouring stars, of which there are several convenient ones in the neighbourhood, viz., Zeta Cephei; Iota Cephei; 7 Lacertae; Xi Cephei; and Epsilon Cephei.

The appearance which falling stars (or meteors) present in the heavens occasionally makes a very imposing sight; and the recent appearance of two very extraordinary ones (the course of one of which is here given) during the month of September, 1858, has called some attention to those bodies. Every one is acquainted with those lustrous objects (which are among the commonest although the most beautiful and remarkable in the heavens), and which bear every resemblance to an ordinary star moving rapidly across the heavens, their entrance and their exit being frequently the work of a moment, and comprised in the twinkling of an eye. Their apparent magnitude is very various—the majority of them being equal in brightness to stars of the third, fourth, fifth, and sixth magnitudes; but there are some which are equal to stars of the first magnitude, and even exceed Venus and Jupiter in lustre. In some of them a globular form can be detected, which pass by the name of "fireballs;" but there is no exact boundary between the smaller members of this class and the larger of the falling stars. Meteors appear to be equally common in all parts of the world, and are seen in as great numbers in the tropical as in the temperate and arctic regions, and are frequently seen through the streamers of the Aurora Borealis. The warmth or coldness of the weather does not appear to have much influence on their numbers; and Brandes saw them in as great numbers in the severe cold of December 6, 1798, as in the mild summer evenings of August 10 and 11, 1823, on which occasions they appeared in extraordinary plenty. In the case of the larger meteors, their track in the heavens is sometimes visible for some seconds, with a faint milky light. In the largest fireballs this track is visible for a much longer space of time; and in the remarkable ones of October 23, 1805, and September 26, 1829, Olbers was able to perceive their track, or tail, for six to seven minutes; and Brandes, in the case of the first, saw traces of its



COURSE OF THE METEOR IN SEPTEMBER, 1858.

light for fifteen minutes. On one occasion Krusenstern and Horner were enabled to perceive traces of the tail of a fireball for the space of an hour after the meteor itself had disappeared. The nature of those objects is still a matter of doubt—being held by some naturalists of former times to be exhalations in the higher part of the atmosphere, like the *ignis fatuus* in the lower. Beccaria considered them due to electricity; Volta and Lavoisier to the inflammable gases; Deluc to the presence of phosphorus in the upper regions. At the present time they are generally considered as independent cosmical bodies existing in space, which occasionally meet the earth in its orbit round the sun, and fall on its surface. The remains and fragments of those fire-globes which have been picked up show them to be strangers to the earth, and are a curious mixture of nickel, iron, and quartz.

Between September 11 and November 4, 1798, Brandes and Benzenberg, in six clear nights, perceived 402 meteors, of which they were able from simultaneous observations to calculate the distances of twenty-two. The least height of the twenty-two meteors above the earth was 1.4 mile; seven were under ten miles; nine between ten and twenty; six above twenty; the highest of all above thirty miles.





Day of Month.	Day of Week.	ANNIVERSARIES, FESTIVALS, REMARKABLE EVENTS.	SUN.					MOON.					HIGH WATER AT				PLANETS.							
			Rises at London.		SOUTH.		SETS at London.	Rises at London.		SOUTH.		SETS at London.	AGE.	LONDON BRIDGE.		LIVERPOOL DOCK.		Day of M.	Rise.	South.	Set.			
			H.	M.	H.	M.	S.	H.	M.	H.	M.	S.		H.	M.	H.	M.					H.	M.	
			Aftern.	Aftern.	Aftern.	Aftern.	Aftern.	Aftern.	Aftern.	Morn.	Aftern.	Morn.		Aftern.										
1	S	<i>Remigius</i> Pheasant-shooting beg.	6	1	11	49	47	5	37	0	36	4	4	7	30	5	4	43	5	2	1	40	1	59
2	S	15TH S. aft. TRIN.	6	3	11	49	28	5	35	1	37	4	59	8	22	6	5	21	5	42	2	20	2	41
3	M	Sun rises at Dublin 6h. 7m.	6	5	11	49	9	5	33	2	24	5	52	9	24	D	6	3	6	26	3	4	3	31
4	Tu	Sun sets at Dublin 5h. 27m.	6	6	11	48	51	5	31	2	57	6	41	10	32	8	6	53	7	26	4	4	4	44
5	W	Day's decrease 5h. 22m.	6	8	11	48	33	5	28	3	22	7	28	11	45	9	8	6	8	52	5	30	6	13
6	Th	<i>Faith</i>	6	10	11	48	15	5	26	3	41	8	13	Morn.	10	9	35	10	17	6	55	7	37	
7	F	Sun rises at Edinburgh 6h. 13m.	6	12	11	47	58	5	24	3	55	8	55	0	56	11	10	59	11	36	8	14	8	44
8	S	Sun sets at Edinburgh 5h. 14m.	6	13	11	47	41	5	22	4	7	9	35	2	8	12	—	0	6	9	6	9	24	
9	S	16TH S. aft. TRIN.	6	15	11	47	24	5	19	4	19	10	16	3	18	13	0	28	0	46	9	41	9	57
10	M	Oxford and Cambr. Michaelmas Term begins	6	16	11	47	8	5	17	4	31	10	57	4	28	14	1	3	1	19	10	13	10	29
11	Tu	Day breaks 4h. 25m.	6	18	11	46	52	5	15	4	43	11	40	5	40	1	1	35	1	51	10	43	10	58
12	W	Twilight ends 7h. 3m.	6	20	11	46	37	5	13	4	57	Morn.	6	55	16	2	5	2	20	11	13	11	29	
13	Th	Tr. K. Edw. Conf.	6	21	11	46	23	5	11	5	16	0	25	8	13	17	2	35	2	51	11	45	—	—
14	F	Sun rises at Dublin 6h. 23m.	6	23	11	46	8	5	9	5	41	1	14	1	32	18	3	7	3	23	0	1	0	17
15	S	Sun sets at Dublin 5h. 1m.	6	25	11	45	55	5	6	6	16	2	8	10	50	19	3	39	3	56	0	34	0	52
16	S	17TH S. aft. TRIN.	6	26	11	45	42	5	4	7	5	3	5	Aftern.	20	4	14	4	33	1	11	1	1	31
17	M	Sebastopol bombarded, 1854	6	28	11	45	29	5	2	8	10	4	4	1	1	21	4	55	5	14	1	52	2	15
18	Tu	<i>St. Luke</i>	6	30	11	45	17	5	0	9	28	5	4	1	46	22	5	37	6	2	2	40	3	9
19	W	Sun rises at Edinburgh 6h. 42m.	6	31	11	45	6	4	58	10	54	6	3	2	18	23	6	31	7	5	3	43	4	23
20	Th	Sun sets at Edinburgh 4h. 44m.	6	33	11	44	56	4	56	Morn.	6	58	2	42	24	7	45	8	32	5	10	5	55	
21	F	Battle of Trafalgar, 1805	6	35	11	44	46	4	54	0	21	7	51	3	0	25	9	17	10	1	6	39	7	21
22	S	Twilight ends 6h. 45m.	6	37	11	44	36	4	52	1	49	8	41	3	16	26	10	43	11	20	7	58	8	27
23	S	18TH S. aft. TRIN.	6	39	11	44	28	4	50	3	14	9	30	3	29	27	11	49	—	8	52	9	15	
24	M	Day's decrease 6h. 27m.	6	41	11	44	20	4	48	4	40	10	19	3	45	28	0	14	0	37	9	37	9	59
25	Tu	<i>St. Crispin</i>	6	42	11	44	13	4	46	6	5	11	10	4	0	29	0	59	1	21	10	20	10	41
26	W	Sun rises at Dublin 6h. 50m.	6	44	11	44	6	4	44	7	30	Aftern.	4	21	1	2	1	42	2	3	11	1	11	21
27	Th	Sun sets at Dublin 4h. 35m.	6	46	11	44	1	4	42	8	54	0	55	4	47	2	23	2	43	11	41	—	—	
28	F	<i>St. Sim. &amp; St. Jude</i>	6	47	11	43	56	4	40	10	14	1	51	5	24	3	3	3	22	0	0	0	0	19
29	S	Day breaks 4h. 56m.	6	49	11	43	51	4	38	11	21	2	47	6	11	4	3	41	4	0	0	38	0	57
30	S	19TH S. aft. TRIN.	6	51	11	43	48	4	36	Aftern.	3	41	7	10	5	4	19	4	38	1	16	1	37	
31	M	Twilight ends 6h. 28m.	6	53	11	43	45	4	34	0	55	4	33	8	18	6	4	59	5	20	1	58	2	19





"TEMPTATION." PAINTED BY W. HEMSLEY.—FROM "THE ILLUSTRATED LONDON NEWS."





SOIREE MUSICALE AT MANILLA.—FROM "THE ILLUSTRATED LONDON NEWS."

THE Special Artist and Correspondent of the ILLUSTRATED LONDON NEWS in China thus describes the above graphic scene in Manilla:—"The *soirée musicale* is in a back shop near Manilla. The Chinamen, having closed for the day, and it being Sunday, think that 'music hath charms,' and are accordingly indulging; an Indian is admiring the harmony; the old gamecock is roosting in a niche in the wall; the pale ale-bottle does not contain anything drinkable, but the teapot is well filled, and the cigar renders the harmony complete in every sense of the word." The Correspondent thus further describes the dancing and musical propensities of the natives of

Manilla:—"The comet not having burnt the world on the 13th of June, the beauties of Manilla set to work frantically at the 'Lancers,' without which novel dance no ball can possibly take place. Every band plays the 'Lancers;' every small urchin whistles the 'Lancers;' people are buried to the tune of the 'Lancers,' for the Indians have peculiar notions of burial music. The other day I heard the 'Post-horn Galop' splendidly played; and, thinking it a 'jollification,' looked out of the window, when to my surprise I saw the village band stepping out, followed by—a dead child dressed out sumptuously, the mourners looking remarkably happy."



## OCTOBER

THE SUN is south of the Equator during this month, and remains in the sign of Libra until 10h. 30m. p.m. of the 23rd, when it passes into that of Scorpio.

The Moon is near Uranus on the evening of the 15th, near Jupiter on the morning of the 19th, near Saturn on the morning of the 21st, near Mars on the evening of the 23rd, and near Venus and Mercury on the evening of the 26th. It is at its greatest distance from the Earth on the afternoon of the 6th, and at its least distance at noon of the 22nd.

First Quarter occurs at 32 minutes past 8 on the evening of the 3rd.  
Full Moon " 51 " 11 on the evening of the 11th.  
Last Quarter " 43 " 5 on the morning of the 19th.  
New Moon " 32 " midnight of the 25th.

MERCURY is situated in the constellation of Virgo at the beginning and in that of Libra at the end of the month. It is unfavourably situated for observation throughout the month, the greatest diameter at any time being less than five seconds of arc. It is in superior conjunction to the Sun on the morning of the 11th, in conjunction with Venus on the morning of the 20th, about four degrees and a half north of the Moon on the evening of the 26th, and in aphelion on the afternoon of the 30th.

VENUS is now most unfavourably situated for observation, as, in addition to its being at its greatest distance from the Earth, and in consequence at its least size, it is likewise too near the horizon. It is in the constellation of Virgo at the beginning and middle of the month, and in that of Libra at the end. It is six degrees north of the Moon on the afternoon of the 26th.

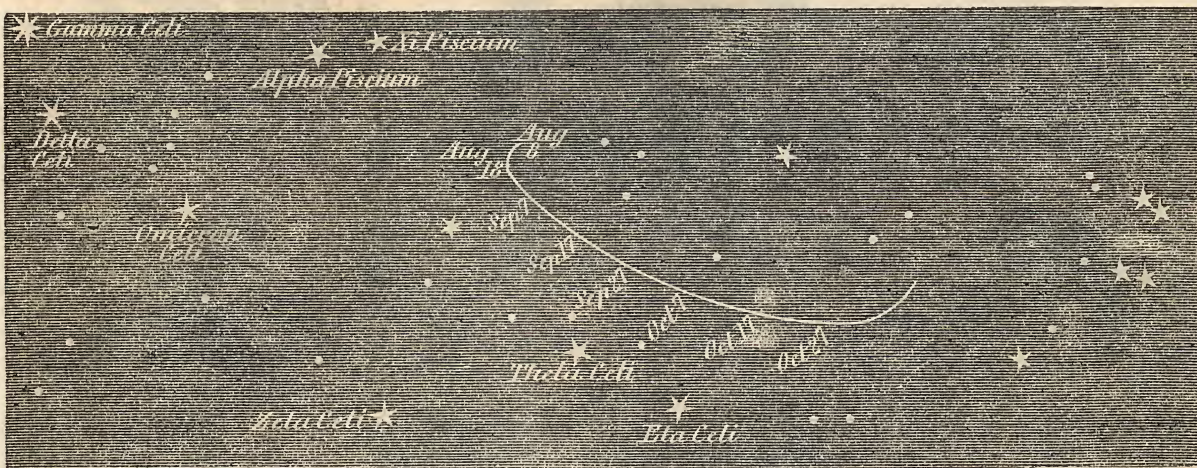
MARS is in aphelion on the morning of the 9th, close to Beta Virginis on the night of the 20th, five degrees north of the Moon on the afternoon of the 23rd, and close to Eta Virginis on the afternoon of the 30th, being only two minutes to the west of that star at 3h. 20m. p.m. It is in the constellation of Leo at the beginning of the month, and in that of Virgo at the middle and end of the month.

JUPITER is now a conspicuous object in the north-west shortly after midnight. It is two degrees south of the Moon on the morning of the 19th. It is in the constellation of Gemini at the beginning and in that of Cancer at the latter part of the month.

SATURN is now visible during the mornings, and will rise at midnight at the end of the month. It is near the Moon on the morning of the 21st, being about two degrees north of it at 7 a.m. The position of the ring is not favourable for telescopic examination; although, of course, it would be desirable to obtain observations of it under all circumstances, and to note all changes of form and colour.

URANUS is now becoming more favourably situated for observation. It is situated in the constellation of Taurus throughout the month, and is five degrees south of the Moon on the evening of the 15th.

VESTA is the brightest of the remarkable and very numerous group of small planets between Mars and Jupiter, whose number now amounts to fifty-four bodies. This planet is just visible to the unaided vision, but requires a keen eye to detect it, as it is not brighter than a star of the seventh or at most of the six and a half magnitude. It arrives at opposition and will consequently be brightest on October 5th, and its course among the stars visible to the naked eye for some time previous to and following this



PATH OF VESTA AT TIME OF OPPOSITION.

date is indicated in the above diagram. It is not at its maximum brightness during this year, and is not so favourably situated for observation as it sometimes is. This, as is well known, is one of the earlier discovered of those bodies. Its diameter is estimated at about 300 English miles.

ECLIPSES OF JUPITER'S SATELLITES.—October 4th, 3h. 54m. morning, disappearance of second satellite; October 6th, 1h. 29m. morning, disappearance of first satellite; October 10th, 1h. 40m. morning, disappearance of fourth satellite; October 10th, 4h. 24m. morning, reappearance of fourth satellite; October 13th, 0h. 21m. morning, reappearance of third satellite; October 13th, 3h. 22m. morning, disappearance of first satellite; October 20th, 1h. 14m. morning, disappearance of third satellite; October 20th, 4h. 21m. morning, reappearance of third satellite; October 20th, 5h. 15m. morning, disappearance of first satellite; October 21st, 11h. 44m. afternoon, disappearance of first satellite; October 26th, 10h. 33m. afternoon, reappearance of fourth satellite; October 27th, 5h. 11m. morning, disappearance of third satellite; October 29th, 1h. 1m. morning, disappearance of second satellite; October 29th, 1h. 36m. morning, disappearance of first satellite.

The autumn astronomical quarter commences on September 23, at 2h. 10m. p.m., about which time or soon after the civil one ends; for to designate the leafless month of November, with its fogs and cold, and the snowy month of December, as autumnal months, does certainly seem a misnomer. Although "the gloaming closes slowly round" between five and six o'clock, and the nights are becoming long and chilly, yet the month of October not seldom retains a part of the attributes of summer, and the days are frequently delightful. On the 1st of October of the present year, shortly before the morning twilight broke, the air was as mild as in the height of summer, and the appearance of the heavens at that time, with the waning crescent of the Moon, the constellations of Orion and Taurus to the south, and the great Comet in the north-east, made up a sight which is seldom witnessed. But it must be confessed that the weather during this month is not so equally pleasant; and a few nights afterwards the thermometer was below freezing point, and the ground covered with a white frost that looked like a thin covering of snow. The mean temperature during this month is 50.2 degrees, approaching more nearly to the mean of the whole year than on any other month. The mean maximum of the day is 56.2 degrees; the mean minimum of the night, 43.9 degrees. The mean range of the thermometer is from 60.1 to 31.4 degrees. The highest temperature ever registered is 74 degrees, the lowest 26 degrees. October is in general the wettest month of the whole year, the mean fall of rain, which is 2.6 inches, being greater than that of any other month. The winds are variable, but mostly come from the southerly and westerly quarters. It sometimes happens that little or no frost occurs until the month of November, on other years the cold is severe. The mean temperature of the month of November is 42.7 degrees, and varies less from year to year than that of any other month. The mean maximum of the day is 48 degrees, and the mean minimum of the night 37.4 degrees. The mean range of the thermometer

is from 57.9 to 26.8 degrees. The highest temperature ever registered is 62 degrees, the lowest 24 degrees. The frost is seldom severe, and continues for little more than a few nights. The weather is usually unsettled, with much rain; and, as there is but little sunshine to drive off the moisture, the air is frequently charged with dense fogs and vapours. The mean temperature of December is 39.2 degrees. The mean maximum of the day is 43.4 degrees, the mean minimum of the night 35.1 degrees. The mean range of the thermometer is from 54.4 to 24.2 degrees. The highest temperature ever registered is 58 degrees, the lowest 15 degrees.

HYDRAULIC CEMENTS.—An interesting paper on this subject has been submitted to the Academy of Sciences by M. F. Kuhlmann, showing the advantage that may be derived from the combination of silicates with mortars and cements in general, and especially with those that are intended to resist the action of sea-water. M. Kuhlmann has observed that if alumina or its silicate, or also magnesia, whether caustic or carbonated, be kneaded into a paste with a solution of silicate of potash or soda, the compounds resulting therefrom will bear a perfect resemblance to the natural silicates, such as feldspar, talcous slate, magnesite, &c., and will, by repose and slow contraction, become hard and semi-transparent, resisting in a high degree the corrosive effects of water. If slaked lime be added to the said compounds they acquire the properties of hydraulic cements. M. Viéat, jun., having shown that calcined magnesia added to a cement would resist the action of sulphate of magnesia, M. Kuhlmann has endeavoured to turn this observation to account, by mixing calcined dolomites (which contain magnesia) with mortar, with the addition of alkaline silicates. This composition he finds very advantageous, since most of the salts contained in sea-water must contribute towards the preservation of such cements. In fact, the chloride of magnesium, as well as the sulphate of magnesia, will be decomposed and form a layer of silicate of magnesia on the surface of the cement; in the same manner, the sulphate of lime must, being in contact with the silicate of potash or soda, form a silicate of lime; and all these silicates strongly resist the action of sea-water. As for sea-salt, which is a chloride of sodium, M. Kuhlmann proves that, in the proportion in which it exists in sea water, it will slowly decompose the silicate of potash contained in the cement and leave the siliceous free. The compositions proposed have, therefore, the singular property, not only of resisting the corrosive qualities of sea-water, but of actually becoming more insoluble the longer they are in contact with it. A cement composed of thirty parts of rich lime, fifty of sand, fifteen of uncalcined clay, and five of powdered silicate of potash is recommended by M. Kuhlmann as having all the requisite hydraulic properties, especially for cisterns intended for spring-water. In marine constructions care should be taken to add an excess of silicate to those portions of cement which are exposed to the immediate contact of the sea.





NOVEMBER.

Day of Month.	Day of Week.	ANNIVERSARIES, FESTIVALS, REMARKABLE EVENTS.	SUN.				MOON.				AGE.	HIGH WATER AT				PLANETS.				
			Rises at Lon- don.	Souths.			SETS at Lon- don.	Rises at London. Aftern.	Souths.			SETS at London. Aftern.	LONDON BRIDGE.		LIVERPOOL DOCK.		Day of M.	Rise.	South.	Set.
				H.	M.	S.			H.	M.			Morn.	Aftern.	Morn.	Aftern.				
1	Tu	All Saints	6 55	11 43	43	4 32	1 23	5 22	9 28	7	5 41	6 3	2 41	3 6	Mercury.	{	1	8 15 M	0 34 A	4 51 A
2	W	All Souls. Michaelmas T. begins.	6 56	11 43	42	4 30	1 44	6 7	10 40	D	6 28	6 56	3 34	4 6			6	8 40	0 45	4 48
3	Th	Canton bombarded, 1856	6 58	11 43	42	4 29	2 0	6 50	11 51	9	7 28	8 5	4 43	5 24			11	9 3	0 56	4 47
4	F	Sun rises at Edinburgh 7h. 17m.	7 0	11 43	42	4 27	2 13	7 31	Morn.	10	8 46	9 24	6 2	6 38			21	9 23	1 6	4 47
5	S	Battle of Inkerman, 1854	7 2	11 43	44	4 25	2 26	8 11	1 2	11	10 0	10 34	7 12	7 44			26	9 38	1 15	4 51
6	S	20TH S. aft. TRIN.	7 4	11 43	46	4 23	2 36	8 52	2 11	12	11 6	11 34	8 12	8 36	Venus.	{	1	7 43	0 20	4 55
7	M	Twilight ends 6h. 18m.	7 5	11 43	48	4 22	2 49	9 34	3 23	13	11 58	—	8 57	9 16			6	8 1	0 25	4 48
8	Tu	Day breaks 5h. 10m.	7 7	11 43	52	4 20	3 3	10 18	4 37	14	0 19	0 38	9 34	9 52			11	8 16	0 31	4 44
9	W	Prince of Wales born, 1841	7 9	11 43	57	4 18	3 20	11 7	5 53	15	0 56	1 14	10 10	10 28			21	8 32	0 37	4 41
10	Th	Day's decrease 7h. 28m.	7 10	11 44	2	4 17	3 43	12 0	7 13	16	1 32	1 50	10 46	11 4			26	8 46	0 44	4 41
11	F	St. Martin	7 12	11 44	8	4 15	4 15	Morn.	8 34	17	2 8	2 26	11 22	11 40	Mars.	{	1	8 59	0 51	4 43
12	S	Cambridge Michaelmas Term divides	7 14	11 44	15	4 14	5 1	0 57	9 50	18	2 44	3 2	11 59	—			6	3 31	9 34 M	3 36
13	S	21ST S. aft. TRIN.	7 16	11 44	23	4 12	6 2	1 57	10 55	19	3 21	3 41	0 19	0 39			11	3 30	9 26	3 21
14	M	Sun rises at Dublin, 7h. 27m.	7 18	11 44	32	4 11	7 18	2 58	11 45	20	4 1	4 22	1 0	1 23			16	3 29	9 18	3 6
15	Tu	St. Machutus	7 19	11 44	42	4 10	8 43	3 58	Aftern.	21	4 45	5 9	1 47	2 13			21	3 26	9 10	2 53
16	W	Sun sets at Dublin 3h. 59m.	7 21	11 44	52	4 8	10 9	4 55	0 46	22	5 35	6 2	2 40	3 9	Jupiter.	{	1	3 24	9 2	2 39
17	Th	Hugh, Bp. of Linc.	7 23	11 45	4	4 7	11 34	5 48	1 5	23	6 31	7 2	3 40	4 15			26	3 22	8 54	2 24
18	F	Sun rises at Edinburgh 7h. 46m.	7 25	11 45	16	4 6	Morn.	6 38	1 22	24	7 37	8 16	4 54	5 36			1	9 3 A	5 8	1 10
19	S	Sun sets at Edinburgh 3h. 43m.	7 26	11 45	29	4 5	0 58	7 26	1 36	25	8 58	9 34	6 12	6 47			6	8 43	4 49	0 51
20	S	22ND S. aft. TRIN.	7 28	11 45	43	4 3	2 21	8 13	1 51	26	10 9	10 43	7 21	7 52			11	8 24	4 30	0 32
21	M	Day's decrease 8h. 2m.	7 30	11 45	58	4 2	3 43	9 1	2 62	27	11 14	11 43	8 21	8 48	Saturn.	{	1	4 10	0 12	11 53 M
22	Tu	St. Cecilia	7 31	11 46	13	4 1	5 7	9 51	2 24	28	—	0 10	9 13	9 37			26	7 43	3 50	11 33
23	W	Clement	7 33	11 46	30	4 0	6 31	10 44	2 48	29	0 35	0 59	10 1	10 23			1	11 47	7 10	2 29 A
24	Th	General Havelock died, 1857	7 35	11 46	47	3 59	7 51	11 38	3 19	30	1 23	1 45	10 44	11 4			6	11 30	6 52	2 10
25	F	Michaelmas Term ends	7 36	11 47	53	3 58	9 4	Aftern.	4 1	1	2 6	2 26	11 24	11 44			11	11 12	6 33	1 50
26	S	Capitulation of Kars, 1855	7 38	11 47	23	3 57	10 3	1 29	4 55	2	2 46	3 6	—	0 4	Uranus.	{	1	10 53	6 14	1 31
27	S	1ST S. in ADVENT	7 39	11 47	43	3 56	10 49	2 23	6 0	3	3 26	3 46	0 24	0 43			21	10 34	5 55	1 12
28	M	Sun rises at Dublin 7h. 52m.	7 41	11 48	33	3 55	11 22	3 13	7 12	4	4 5	4 24	1 2	1 21			26	11 15	5 36	0 53
29	Tu	Sun sets at Dublin 3h. 43m.	7 42	11 48	24	3 54	11 46	4 0	8 24	5	4 43	5 2	1 40	2 0			1	5 34	1 41	9 44 M
30	W	St. Andrew	7 44	11 48	45	3 53	Aftern.	4 44	9 35	6	5 22	5 43	2 21	2 42			6	5 13	1 21	9 24
																11	4 54	1 0	9 2	
																16	4 33	0 40	8 42	
																21	4 13	0 19	8 21	
																26	3 52	11 54 A	8 0	



COMANCHEES CARRYING OFF A CAPTIVE GIRL.—FROM "THE ILLUSTRATED LONDON NEWS."





## BRITISH BIRDS OF THE SEASON.

## NOVEMBER AND DECEMBER.

Gloomy is November—a month of fogs and mists and driving flets. The heavy gust tears from the trees the last lingering vestiges of foliage, and scatters them far and wide, not without benefit to the various plants that love the woodland glade. They cover tender shoots and buried seeds, protecting them from the bitter blast. Then, decaying as spring comes on, the leafy masses become resolved into a light soil replete with nutriment. Thus, in the course of time, is procured that bed of rich vegetable mould, in which the woodland windflower and the woodsorrel flourish. Now takes place a great change in the condition of our fauna. Few are the insects which claim our notice; it is true that the meshes of the geometric spider may be still seen stretching from bush to bush in the sheltered garden, and the noonday sun still calls forth myriads of dancing gnats, which

mix and weave  
Their sports together in the solar beam.

But the quick-glancing myriads, some gleaming with metallic lustre, some gauze-winged, others painted and adorned beyond the reach of mimic art—where are they? Where is the bee? Asleep in its hive. But greatly thinned is the colony, for the drones have been all destroyed. Where are the wasps, which we lately saw in swarms? All dead, save a few females, to whom, with many chances against them, nature intrusts the establishment of new and numerous colonies on the return of the ensuing spring.

Look we now for reptiles. The snake is in its hybernaculum, perhaps a hotbed or manure heap in the rougher portion of the garden, there, intertwined with others of its kind, it lies secreted, torpid, but not dead. The frog has buried itself in the mud of the pond, or of the sluggish drainage course—thousands, collected from all parts, clasped firmly together, a batrachian phalanx, have submerged themselves, and forced themselves deeply into the black ooze. The water newt is also thus ensconced in the mud; but the toad is lurking in some pit or deep hole, or under the cold stone.

All our hybernating quadrupeds, the hedgehog and the dormouse, and the bat (save that the pipistrel is often roused from its lethargy by the warm sun-rays, as are the gnats also, to which it gives chase). The squirrel has collected his hoard of winter provender; but he is too mercurial; he cannot sleep fast as hedgehog or dormouse. The mole comes unfrequently to the surface. He is now driving deep levels, in pursuit of buried worms, grubs, and larvae. Longer and fuller now is the coat of the hare and of the rabbit. The stoat or ermine (*Mustela Erminea*) is now in full fur. In the more northern latitudes of Europe its fur becomes snowy white, with the exception of the tip of the tail, which is deeply black. In our island, if we except the mountain ranges of Scotland, this ferocious species of weasel seldom assumes a pure snowy livery, a slight tinge of fawn or straw-yellow remaining permanent. We need not expatiate on the value of ermine skins. They line the Royal robes of state. Large importations arrive from Norway, Russia, and Siberia to this country.

Our domestic animals now acquire additional clothing—rough and long is the coat of the horse and of the ox, thickened is the fleece of the sheep, and more developed becomes the under-garment of fine fibres, which in every distinct breed differs in staple, in length, and felting qualities, from the long-woolled merino to the genuine short-woolled Southdown. Our very poultry are more warmly clad. Of these enough. Let us visit the heronry and the rookery. The herons have dispersed themselves; one or two perhaps may be seen perched among the deserted nests; but there is silence in the aerial township, where but of late all was clamour and bustle. Scattered too in small bodies over the country, and along the margin of the tidal rivers, are legions of rooks. They forage during the day, returning ere the close of evening in marshalled columns to the tall wood, there, but not among their nests, to repose during the night. Sunrise is the signal for their departure; away they sail, dispersing as they proceed to collect again in long-drawn files

As evening spreads o'er all  
Her gradual dusky veil.

Magpies now collect in small companies. During the summer they strictly associated in pairs; but some interested motives, which they keep secret, draw them at this season together. Social birds are jackdaws: they live in communities; and, if we are to judge from their loquacity, they entertain each other with many a pleasant bit of scandal, perhaps at the expense of their co-tenants of the old tower or castellated ruin—the garrulous starlings. At this season starlings, as we have often seen, associate in vast bands, to which extensive reed or willow beds offer especial attraction. Nothing can exceed the precision and beauty of the aerial evolutions of these birds as they wheel and gyrate before finally settling. With them are often conjoined myriads of swallows; but the two species interfere not with each other. Each phalanx acts independently. But the swallows—a few stragglers, whose fate we have yet to learn—pass away as October closes. The starlings are permanent, although we have reason to believe that foreign visitors claim the rights of hospitality and join their Britanic relations. It would almost seem as if the troops were under the direction of skilled field-m Marshals. Instantaneously, as though some signal of command went forth, are the changes displayed. Now they soar, now descend, now separate, and again coalesce; sometimes they sweep along steadily, and then suddenly throw themselves into such an attitude as to exhibit all at once the under surface of the wings and body. At length, after much trouble, ever and anon rising and sinking, the host querulously settles for the night. During the day these congregated troops are dispersed over the country; they intermix with friendly parties of rooks, and intrude themselves into the society of herds and flocks, fearlessly settling upon ox or sheep, and tripping around them, busy in quest of insects; for the warmth and the weight of the cattle induce numbers to emerge from concealment.

Sky-larks now, conjoined with relatives from the Continent, congregate in astonishing numbers, resorting to high downs, ploughed lands, and turnip fields. The gun thins their ranks, but the net still more so, for their flesh is in request, and thousands are sent for sale to the London market. Dunstable larks have been long celebrated, but numbers are imported from Holland and Belgium.

In many localities the fields are divided by large, dense, gnarled hedges, every stem and twig of which is covered with lichen; there, and along the edge of brake or thicket, we may follow, without causing much disturbance, whole families of that beautiful little bird, the long-tailed titmouse, so celebrated for its exquisite nest. Most varied are the attitudes which they now assume; not an instant's repose they know: rest-

less, creeping, clinging, pendent, but ever in progress, advancing *passu*, with the cautious watcher. With microscopic eyes do they pry into every cranny and between every bud, trusting to find some concealed grub. In this respect they remind us of the bullfinch; but the bullfinch, with his strong convex bill, minces the buds to shreds and swallows them; not so this little tit. At the same time, as we can personally attest, the bullfinch will strip off and reject the buds of trees—we speak now of the cherry and other orchard or garden fruit-trees—without any apparent motive, save that of mischief. We have many times watched the bullfinch thus energetically busy in inflicting this w. nton injury, and have been surprised at the devastation committed in the space of a few minutes. Beautiful birds are all the tits; they breed about the farmstead, in the fissures of old walls, in ivy, and in the holes of decaying fruit-trees. We allude more particularly to the great titmouse (*Parus major*), and its relative the blue species (*Parus ceruleus*). We once, while walking down one of the remoter pathways of a large garden, accidentally turned over a rather small ordinary red earthenware garden-pot, when, lo and behold! we exposed a nest of young tits, nearly full feathered. No access could be gained by the parent birds to the nest except through the drainage hole of the reverted pot. Deceptive is the deep, full, downy plumage of the tits, making them appear larger than they are in reality.

The two species of tit, whose actions we stop for a moment to contemplate, are now displaying their characteristic restlessness, vivacity, and poses plastiques in rosebush and fruit-tree, and upon the decaying disc of the sunflower, where a few oleaginous seeds yet remain. Gilbert White observes that these birds pull out the straws of old thatch in order to obtain a supply of hybernating insects, spiders, &c.; they are, however, not very delicate in their diet. The hog-trough and the hog-tub offer many a nice picking—for they delight in luscious fat—and will not only pick a castaway marrowbone, but, as we have seen, roost in it during the night. Small flocks of greenfinches now assemble. During the latter part of autumn and the ensuing winter months they are sure to be seen wherever a bed of sunflowers is loaded with full seed-discs. A few years since we were surprised by the numerous daily visits which these birds paid to such a plantation in a large garden, bounded by fields and hedgerows. The plantation was made for the sake of the poultry; but, had measures not been taken, little would have fallen to their share. Most graceful and easy were their actions. Hovering on the wing, they picked out the seeds of the deflected disc, ever and anon lightly darting away and as lightly returning.

We are not writing methodically. Ours is the humble duty of recording a few observations called forth by the phases of the circling months. We aim at no order; we may therefore be pardoned for introducing three little birds, whose visits to our island appear to be very irregular.

First, the goldcrest. This elegant bird, the smallest of our British species, is indigenous in our island. Most exquisitely constructed is its nest, often over-canopied by the tassels of the larch, or suspended from a thickly-clothed fir-branch. In many of its actions it reminds us of the tit. At uncertain intervals vast flights of these birds are drifted over from the pine forests of Norway and Sweden, and arrive exhausted on our northern coasts. Mr. Solby narrates a remarkable instance, in point:—

“On the 24th and 25th of October, 1822, after a very severe gale, with thick fog from the north-east (but veering towards its conclusion to the east and south of east), thousands of these birds were seen to arrive upon the seashore and the sandbanks of the Northumbrian coast, many of them so fatigued by the length of their flight, or perhaps by the unfavourable shift of wind, as to be unable to rise again from the ground; and great numbers were, in consequence, caught or destroyed. This flight must have been immense in quantity, as its extent was traced through the whole length of the coasts of Northumberland and Durham. There appears little doubt of this having been a migration from the more northern provinces of Europe (probably furnished by the pine forests of Norway and Sweden), from the circumstance of its arrival being simultaneous with that of large flights of the woodcock, fieldfare, and redwing.”

Similar influxes of the goldcrest are elsewhere on record. But what excites our wonder is that a little, puny bird, with feeble powers of flight, should, amidst storms and drifting winds, arrive upon a distant shore. Who can tell the extent of loss during the troublous journey? Secondly, the siskin, or aberdivine. This finch—although there is every reason to believe that it breeds in the pine-woods of the northern portions of our island, is at uncertain intervals drifted in immense flocks over the northern sea. Every year, no doubt, there is a certain influx of visitors, but occasionally there is an overflow. It is then that small flocks distribute themselves over every part of the country, and great numbers are captured by the ruthless bird-catcher. We have kept this species in captivity. There was nothing in its manners to recommend it; its appetite was voracious in the extreme, and it died suddenly, overloaded with fat. Thirdly—The lesser redpole. This pretty finch, allied to our well-known linnet, though an indigenous species, is a winter visitant also. No winter passes without an influx from the north of Germany, Denmark, and Norway, to our island; but sometimes the flights are multitudinous. Very remarkable is its tameness, even from the moment of its capture. Simple and confiding, it perches on the finger, flits about the room, and seems to be content even within the narrow limits of the wire cage in which it is confined. The lesser redpole is found breeding in the northern districts of England, extending into Scotland and Ireland. From these districts a southern migratory movement brings it into warmer localities, where it is joined by its foreign-bred relatives.

We might here dilate upon the habits of the snow-bunting (*Emberiza nivalis*) and of the mountain finch (*Prinilla montefringilla*), but discretion checks us. We are not writing a history of birds: ours is a superficial review. While commenting upon our ornithology, as month succeeds to month, it would be unpardonable to omit an express reference to the great works of Mr. Gould on the birds of Europe and Asia. On these splendid works we will not attempt to dilate;—noble monuments are they of perseverance and genius. More we need not say.

December is on the wane. Flocks of fieldfares and redwings from Norway and Sweden are busy feeding upon the ruddy berries of the brake and hedergerows; fresh flights of woodcocks have established themselves in their covert haunts, as shown in our Illustration. Our wildfowl have returned from the regions of the Arctic circle, here for awhile

To sport among their fellows.

The year ends where it began—the circle is complete. Hail to the New Year!



# THE ILLUSTRATED LONDON ALMANACK FOR 1859.

## NOVEMBER.

THE SUN is south of the Equator throughout this month, and remains in the sign of Scorpio until 7h. 12m. p. m. of the 22nd, when it passes into that of Sagittarius.

THE MOON is near Uranus at midnight of the 11th, near Jupiter on the morning of the 15th, near Saturn on the afternoon of the 17th, near Mars on the morning of the 21st, near Venus on the evening of the 25th, and near Mercury on the morning of the 26th. It is at its greatest distance from the Earth on the morning of the 3rd, at its least distance on the evening of the 16th, and at its greatest distance on the morning of Dec. 1st.

First Quarter occurs at 19 minutes past 4 on the afternoon of the 2nd.

Full Moon " 5 " 2 on the afternoon of the 10th.

Last Quarter " 6 " 1 on the afternoon of the 17th.

New Moon " 43 " 1 on the afternoon of the 24th.

MERCURY is in the constellation of Libra at the beginning and middle of the month, and in that of Sagittarius at the end of the month. It is becoming more favourably situated for observation, and the dimensions of its disc are gradually increasing. It arrives at its greatest easterly elongation on the morning of the 26th, and is about a degree and a half north of the Moon a few hours later.

VENUS still remains unfavourably situated for observation, being low down, and the diameter of its disc not being more than ten seconds of arc, and nearly quite round. It is in the constellation of Libra at the beginning of the month, and in that of Ophiuchus at the middle and end of the month. It is three degrees and a half north of the Moon on the afternoon of the 25th.

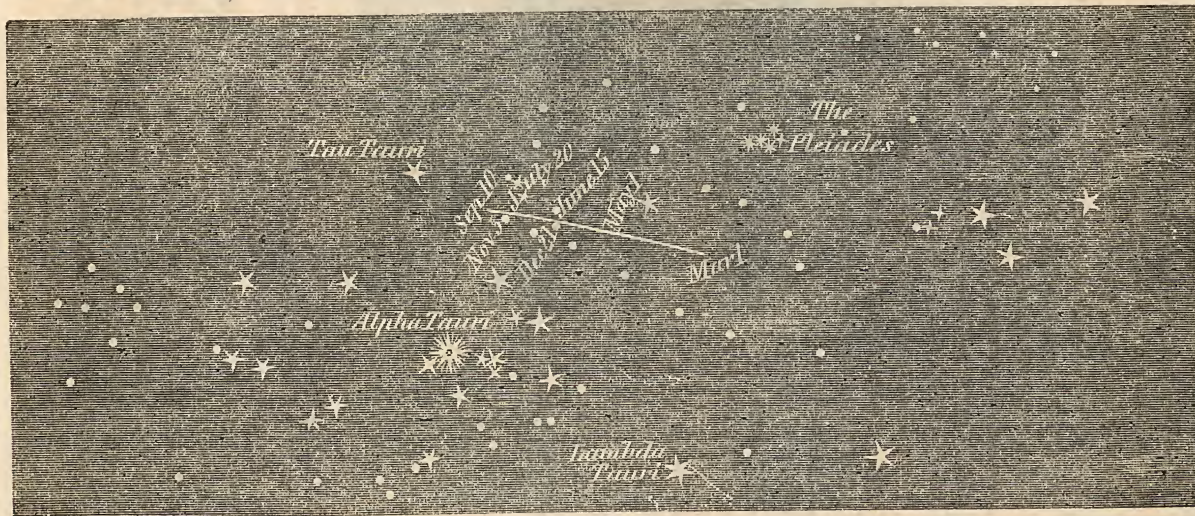
MARS now rises shortly before the Sun, and is becoming a little more favourable for observation, although its disc is not more than four seconds in diameter. It is near Theta Virginis on the morning of the 19th, and about six degrees north of the Moon on the morning of the 21st. It remains in the constellation of Virgo throughout the month.

JUPITER is the most conspicuous object in the eastern sky during this month for a few hours before midnight. It remains in the constellation of Cancer throughout the month. It is stationary on the afternoon of the 12th, and is a little to the south of the Moon on the morning of the 15th.

SATURN is situated in the constellation of Leo throughout the month. It is near the Moon on the night of the 17th, and in quadrature with the Sun on the 18th. It may now be considered as the morning star, and its ruddy light is in strong contrast with that of Regulus (Alpha Leonis), near which it is situated. The various phenomena of the rings and satellites may now favourably be seen when the planet is above the horizon at a proper altitude, although the former portion of the planet is too small for accurate observation.

URANUS is a little less than five degrees south of the Moon shortly after midnight of the 11th, and comes into opposition with the Sun at noon of the 28th, and is consequently favourably situated for observation during this month and the next. It remains in the constellation of Taurus throughout the month.

The planet URANUS is in opposition to the Sun at the latter end of November, and is very favourably situated for observation for the remainder of the year. This object is just perceptible to the naked eye, like Vesta, but its faintness is due, not, like that asteroid, to its small dimensions, but its



PATH OF URANUS, 1850.

great distance, the globe of Uranus having a diameter of 34,000 miles, and being eighty-two times as large as the Earth. Its planetary aspect is readily recognised in a telescope, and has quite a different appearance from that of stars of the sixth and seventh magnitudes—the latter appearing more like flashing points, and being surrounded by irregular rays, whilst Uranus has a dull and settled light with a large disc. The satellites of Uranus are among the faintest objects visible in a telescope, although not so faint as the new satellite of Saturn. The satellite of Neptune is of the same degree of brightness as those of Uranus, and has only been seen by three or four telescopes in the world.

ECLIPSES OF JUPITER'S SATELLITES.—Nov. 5th, 3h. 30m. morning, disappearance of first satellite; Nov. 5th, 3h. 37m. morning, disappearance of second satellite; Nov. 6th, 9h. 58m. afternoon, disappearance of first satellite; Nov. 12th, 5h. 23m. morning, disappearance of first satellite; Nov. 12th, 6h. 13m. morning, disappearance of second satellite; Nov. 13th, 11h. 51m. afternoon, disappearance of first satellite; Nov. 21st, 1h. 44m. morning, disappearance of first satellite; Nov. 22nd, 10h. 9m. afternoon, disappearance of second satellite; Nov. 24th, 9h. 4m. afternoon, disappearance of third satellite; Nov. 25th, 0h. 15m. morning, reappearance of third satellite; Nov. 25th, 3h. 38m. morning, disappearance of first satellite; Nov. 29th, 10h. 6m. afternoon, disappearance of first satellite; Nov. 30th, 0h. 45m. morning, disappearance of second satellite.

The year 1858 has been distinguished by the reappearance of two of the limited class of *periodic* comets—viz., those known by the names of Encke and Faye. The former of those was discovered in 1786 by Messier, and in 1795 by Miss Herschel. For a third time it was discovered by Thulis, in 1805; and for the fourth time by Pons, in 1819. The similar courses which these comets appeared to describe round the Sun arrested the attention of Professor Encke, by whom they were proved to be one and the same comet, and he consequently predicted its reappearance in 1822, and it was found very close to the predicted place on that occasion. This comet makes a revolution round the Sun in 1204 days. The appearance which it presented during the present year was very similar to that of the generality of telescopic comets, consisting of an almost circular nebulosity with a bright point of light (the nucleus) nearly at the centre, and it appears to have been very favourably seen at its apparition in 1805, being on this occasion visible to the naked eye. At first it resembled the nebula in Andromeda in extent, hue, and brilliancy, but afterwards a tail of three degrees in length was perceptible. The effect of the Sun on this comet is very remarkable, it being found that it becomes greatly compressed as it approaches the great central luminary; and it has been calculated that between October 28th and December 2nd, in 1828, at which latter time the comet had arrived at its shortest distance from the Sun, it had dwindled down to the one-sixteenth thousandth part of its original volume. The comet of Faye, which has also reappeared during the present year, is the

fourth comet of short period whose return is certainly known. This comet was discovered by M. Faye in 1843, and was very bright on its first appearance, and it was considered that it might have been seen with the naked eye. In November, 1850, this comet was first detected by Mr. Breen with the great Northumberland refractor of the Cambridge Observatory; but, though it remained visible until the following March, it was so faint as to be only seen by two other telescopes in the world. During the present apparition the comet has been equally faint as on the former occasion, and resembles a misty star of the faintest order. This comet will not return until 1866.

The mean temperature of November, which has at least an equal fall to that of September, is 42·67 degrees. It varies less from year to year, or has a less range than that of any other month. The mean maximum of the day is 48 degrees; the mean minimum of the night 37·4 degrees. The mean range of the thermometer is from 57·92 to 26·79 degrees. The highest temperature ever registered is 62 degrees; the lowest 24 degrees.

A CHEAP TELESCOPE.—Procure from an optician a 36-inch object-glass (that is, a convex glass which produces a focus of the sun's rays at the distance of thirty-six inches), and a 1-inch eye-glass (that is, a convex glass producing a focus at one inch). Employ a tinplate-worker to make two tin tubes—one thirty inches long, and about an inch and a quarter in diameter; the other ten or twelve inches long, and its diameter such that it will just slide comfortably inside the larger. The inside of these tubes should first be painted, or otherwise lined, with a dull black. At the end of the larger tube an ingenious workman will have no difficulty in securing the object-glass, so that not more than an inch diameter of it shall be exposed, and at the end of the smaller the eye-glass must be fixed. When the open end of one tube is inserted into the open end of the other, so that the two glasses shall be about thirty-seven inches apart, a telescope will be present which will magnify the diameter of objects thirty-six times; or, in other words, will make heavenly objects appear thirty-six times nearer. With such a telescope the satellites of Jupiter, the crescent of Venus, and the inequalities of the surface of the Moon may be distinguished. Galileo's telescope, with which he made the first discoveries in the heavens, did not magnify more. We need scarcely add, that with this instrument all objects will appear inverted; but with regard to celestial objects this is of no importance. The telescope costs about 4s.; but for double that sum a very much superior one may be constructed by obtaining a larger and better object-glass, of forty inches to forty-eight inches focal distance, the cost of which is 3s. 6d., retaining the 1-inch eye-glass, and having the tubes made to suit the additional greater length of focus and diameter of object-glass. The possession of such a telescope may add greatly to the instruction of those who may have any taste for the sublime facts of astronomy.





DECEMBER.

Day of Month	Day of Week	ANNIVERSARIES, FESTIVALS, REMARKABLE EVENTS.	SUN.			MOON.			HIGH WATER AT				PLANETS.			
			Rises at London.			SETS at London.			LONDON BRIDGE.		LIVERPOOL DOCK.		Rise.		Set.	
			H. M.	H. M.	S.	H. M.	H. M.	H. M.	Morn.	Aftern.	Morn.	Aftern.	H. M.	H. M.	H. M.	H. M.
1	F	Day breaks 5h. 41m.	7 45	11 49	7 3 53	0 18	5 26	10 46	7 6 4	6 26	3 4	3 27				
2	F	Battle of Austerlitz, 1805	7 46	11 49	30 3 52	0 31	6 6	11 55	9 6 49	7 14	3 52	4 19				
3	S	Sun rises at Dublin 7h. 58m.	7 48	11 49	54 3 52	0 43	6 46	Morn.	7 41	8 13	4 51	5 25				
4	S	2 <sup>ND</sup> S. in ADVENT	7 49	11 50	18 3 51	0 54	7 26	1 5 10	8 47	9 20	5 58	6 30				
5	M	Sun sets at Dublin 3h. 39m.	7 51	11 50	42 3 51	1 7	8 9	2 15	9 52	10 22	7 0	7 29				
6	Tu	St. Nicholas	7 52	11 51	7 3 50	1 23	8 55	3 30	10 51	11 19	7 57	8 24				
7	W	Father Matthew died, 1856	7 53	11 51	33 3 50	1 42	9 46	4 47	11 46	—	8 49	9 13				
8	Th	Conc. B. V. Mary	7 54	11 51	59 3 49	2 10	10 42	6 8 14	0 11	0 35	9 35	9 58				
9	F	Sun rises at Edinburgh 8h. 21m.	7 55	11 52	25 3 49	2 51	11 42	7 28 15	0 57	1 20	10 21	10 43				
10	S	Sun sets at Edinburgh 3h. 23m.	7 57	11 52	52 3 49	3 46	Morn.	8 40	1 43	2 5	11 5	11 26				
11	S	3 <sup>RD</sup> S. in ADVENT	7 58	11 53	20 3 49	5 0	0 45	9 39	2 27	2 48	11 48	—				
12	M	Day's decrease 8h. 44m.	7 59	11 53	48 3 49	6 25	1 47	10 19	3 10	3 33	0 11	0 35				
13	Tu	St. Lucy	8 0	11 54	16 3 49	7 53	2 47	10 49	3 57	4 21	0 59	1 23				
14	W	Washington died, 1799	8 1	11 54	44 3 49	9 22	3 43	11 11	4 45	5 9	1 47	2 12				
15	Th	Twilight ends 5h. 55m.	8 1	11 55	13 3 49	10 47	4 35	11 28	5 34	5 59	2 37	3 2				
16	F	Cambridge Michaelmas Term ends	8 2	11 55	42 3 49	Morn.	5 24	11 43	6 24	6 50	3 28	3 56				
17	S	Oxford Michaelmas Term ends	8 3	11 56	12 3 49	0 10	6 11	11 57	7 18	7 49	4 27	4 59				
18	S	4 <sup>TH</sup> S. in ADVENT	8 4	11 56	41 3 50	1 32	6 59	Aftern. 24	8 21	8 53	5 31	6 4				
19	M	Sun sets at Dublin 3h. 40m.	8 5	11 57	11 3 50	2 54	7 47	0 29	9 26	10 0	6 38	7 13				
20	Tu	Louis Napoleon proclaimed, 1848	8 5	11 57	41 3 50	4 15	8 37	0 50	10 35	11 10	7 48	8 20				
21	W	St. Thomas	8 6	11 58	11 3 51	5 35	9 30	1 18	11 42	—	8 51	9 19				
22	Th	Sun rises at Edinburgh 8h. 33m.	8 6	11 58	41 3 51	6 50	10 24	1 55	12 0	0 13	9 45	10 9				
23	F	Sun sets at Edinburgh 3h. 25m.	8 7	11 59	11 3 52	7 53	11 20	2 44	1 7	1 31	10 32	10 54				
24	S	Christmas-eve	8 7	11 59	41 3 52	8 44	Aftern. 3 46	1 54	2 16	11 16	11 37	—				
25	S	CHRISTMAS DAY	8 8	12 0	11 3 53	9 21	1 5	4 55	1 23	2 59	11 56	—				
26	M	Length of Day 7h. 46m.	8 8	12 0	41 3 54	9 49	1 54	6 8	2 3 18	3 36	0 14	0 32				
27	Tu	St. John	8 8	12 1	11 3 54	10 8	2 39	7 20	3 3 54	4 12	0 50	1 7				
28	W	Innocents	8 8	12 1	41 3 55	10 25	3 21	8 31	4 29	4 46	1 24	1 41				
29	Th	Day breaks 6h. 1h.	8 8	12 2	10 3 56	10 37	4 2	9 40	5 5 3	5 21	1 59	2 17				
30	F	Twilight ends 6h. 0m.	8 8	12 2	39 3 57	10 48	4 41	10 49	6 5 39	5 57	2 35	2 53				
31	S	Silvester	8 9	12 3	8 3 58	11 1	5 21	11 58	7 6 15	6 34	3 12	3 32				





"CHRISTMAS TIME." PAINTED BY W. HEMSLEY.—FROM "THE ILLUSTRATED LONDON NEWS."



DECEMBER.

THE SUN is south of the Equator during this month, and remains in the sign of Sagittarius until 8h. 3m. A.M. of Dec. 22nd, when it passes into that of Capricornus, and the winter quarter commences.

The Moon is near Uranus on the morning of the 9th, near Jupiter on the afternoon of the 12th, near Saturn on the evening of the 14th, near Mars on the evening of the 19th, near Mercury on the evening of the 22nd, and very near Venus on the morning of the 26th. It is at its shortest distance from the Earth at 2 A.M. of the 13th, and at its greatest distance at 3 A.M. of the 29th.

The First Quarter	occurs at 50 minutes past 1	on the afternoon of the 2nd.
Full Moon	„ 13 „	3 on the morning of the 10th.
Last Quarter	„ 15 „	9 on the evening of the 16th.
New Moon	„ 47 „	5 on the morning of the 25th.
First Quarter	„ 48 „	10 on the morning of Jan. 1, 1860.

MERCURY is in the constellation of Sagittarius at the beginning of the month, and in that of Ophiuchus at the end of the month. It is stationary on the morning of the 5th, close to Venus on the afternoon of the 5th, in perihelion on the afternoon of the 13th, in inferior conjunction with the Sun on the afternoon of the 14th, near the Moon on the evening of the 22nd, and stationary on the evening of the 24th. The low position of the planet throughout the month prevents any favourable observation.

The disc of VENUS still continues nearly quite round, and of small dimensions; and the planet is too near the horizon and too close to the Sun to be favourably situated for observation. It is in aphelion on the morning of the 15th, and very close to the Moon on the morning of the 26th. It is in the constellation of Ophiuchus at the beginning of the month, in that of Sagittarius at the middle, and in that of Capricornus at the end of the month.

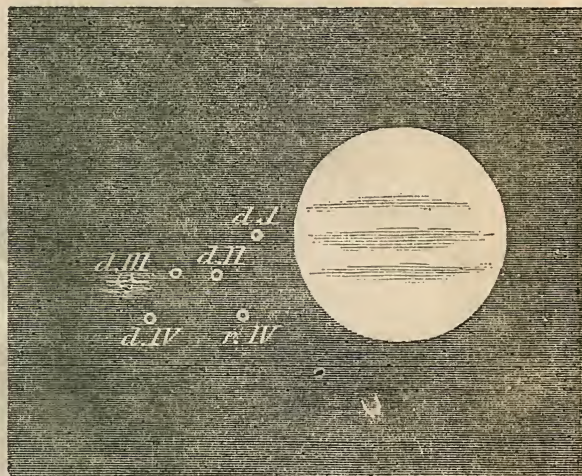
MARS is in the constellation of Virgo at the beginning and middle of the month, and in that of Libra at the end. It is six degrees and a half north of the Moon on the night of the 19th, and close to Lambda Virginis at midnight of the 23rd. Since July the illuminated portion of its disc (as it appears to the Earth) is slightly losing its circular shape, and it now shows the same phase as at the middle of February. From the small dimensions of its disc (which is still less than five seconds of arc) this small deviation from its circular form is, however, not readily apparent.

JUPITER is now the most brilliant object in the eastern heavens during the evenings and nights, and well situated for telescopic examination, the disc now being forty-three seconds in diameter, and the planet high up before midnight. It is in the constellation of Cancer for the first few days of the month, and in that of Gemini for the remainder of the month.

SATURN is now visible for some hours before midnight, and is becoming more conveniently situated for examination. It remains in the constellation of Leo throughout the month. It is stationary on the morning of the 8th, after which it is retrograde, or moving from east to west. At 10h. 36m. P.M. of the 14th it is two degrees and three quarters north of the Moon. During the month of opposition, although the ring is not so well situated for observation as formerly, the planet is still a fine object to the telescope. It is red, and, with its numerous satellites and belts, always presents a source of entertainment to the observer. The unique appendage with which it is surrounded

and to which the best telescopes are always directed for further discovery, will always cause it to be considered as the most remarkable of the planetary bodies, even if its eight moons are altogether forgotten.

URANUS is nearly five degrees south of the Moon on the morning of the 9th, and continues favourably situated for observation. It continues in the constellation of Taurus throughout the month.



POSITION OF SATELLITES OF JUPITER AT INSTANT OF DISAPPEARANCE.

The planet JUPITER, with its satellites, is the most interesting object to which the telescope can be directed; and the continual change which is going on in the positions, and the almost hourly phenomena of the eclipses, occultations, and transits of the moons, and the shadows across the planet, form a great variety of entertainment. The positions of the four satellites for the latter days of the year, at six o'clock morning, are given in diagram, from which their rapid motions are easily seen. The eclipses of the satellites (which are given under each month when visible at London) are the most useful; and it is very interesting to watch the immersion and reappearance of the moons from the shadow of Jupiter, and as they enter again into full sunshine. The above diagram shows the positions of the four satellites at the moment of disappearance, in reference to the disc of Jupiter, for the month of December; but this varies at different times of the year.

Dec 18				0	1.	2.	3.	4.
" 19				1.	0	2.	3.	4.
" 20			2.	3.	0	1.		4.
" 21			3.	2.	0			4.
" 22			3.	1.	0	2.		4.
" 23				3.	0	1.		4.
" 24			2.	1.	0	4.	3.	
" 25				4.	0	1.		3.
" 26			4.	2.	0	2.	3.	
" 27		4.		2.	0	1.		
" 28	4.		3.	2.	0			
" 29	4.		3.	1.	0		2.	
" 30		4.		3.	0	1.		
" 31			4.	2.	1.	0	3.	
Jan 1				4.	0	2.	1.	3.

POSITION OF THE SATELLITES OF JUPITER, 6H. A.M.

ECLIPSES OF JUPITER'S SATELLITES.—Dec. 2nd, 1h. 2m. morning, disappearance of third satellite; Dec. 2nd, 4h. 14m. morning, reappearance of third satellite; Dec. 5th, 5h. 31m. morning, disappearance of first satellite; Dec. 6th, midnight, disappearance of first satellite; Dec. 7th, 3h. 32m. morning, disappearance of second satellite; Dec. 9th, 5h. 1m. morning, disappearance of third satellite; Dec. 14th, 1h. 53m. morning, disappearance of first satellite; Dec. 14th, 5h. 58m. morning, disappearance of second satellite; Dec. 15th, 5h. 22m. afternoon, disappearance of first satellite; December 16th, 1h. 38m. morning, disappearance of fourth satellite; December 16th, at 5h. 0m. morning, reappearance of fourth satellite; December 17th, 7h. 16m. afternoon, disappearance of second satellite; December 21st, 3h. 47m. morning, disappearance of first satellite; December 22nd, 10h. 15m. afternoon, disappearance of first satellite; December 24th, 9h. 52m. afternoon, disappearance of second satellite; December 25th, 5h. 41m. morning, disappearance of first satellite; December 30th, 0h. 9m. morning, disappearance of first satellite; December 31st, 6h. 37m. afternoon, disappearance of first satellite.

In the long run the weather of the month of December is much oftener mild than severe. The mean temperature is 39.19 degrees, its fall being scarcely half that of either of the two preceding months. The mean maximum of the day is 43.5 degrees; the mean minimum of the night 35.1 degrees. The mean range of the thermometer is from 54.4 degrees to 24.23 degrees. The highest temperature ever registered is 53 degrees; the lowest 15 degrees. Very sharp frosts, lasting for more than two or three nights together, are the exception, not the rule. On the average, half, or rather more than half, the nights in the month are frosty. Taking one year with another, westerly and south-westerly winds predominate. But, notwithstanding the decided prevalence of these winds in ordinary seasons, the mean fall of rain would seem to be less in December than that of any other month, being only 1.364 inch. This may perhaps arise from the circumstance of these winds having already parted with their great excess of moisture during the rains of the two months preceding. The greatest quantity of rain ever measured is 2.903 inches, in 1845; the least quantity .183 inch, in 1843.





JANUARY AND FEBRUARY.





MARCH AND APRIL.





MAY AND JUNE.





J U L Y   A N D   A U G U S T .





SEPTEMBER AND OCTOBER.





NOVEMBER AND DECEMBER.